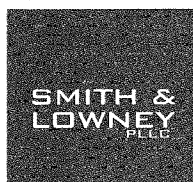


**PUBLIC INTEREST  
LAWYERS**

- Protecting the environment and consumers.
- Holding corporations and governments accountable.



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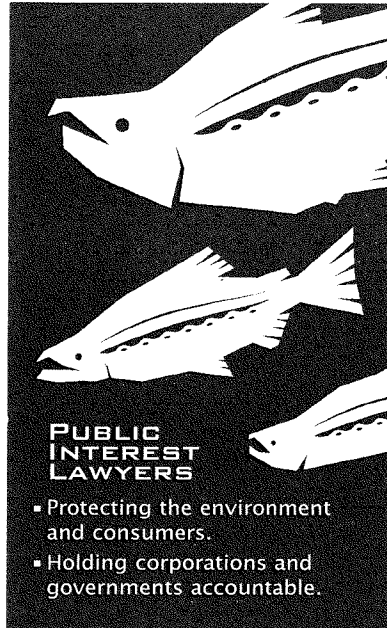
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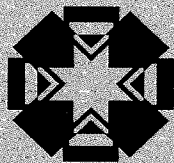
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- Holding corporations and governments accountable.



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**FILE COPY**

**Stormwater Pollution Prevention Plan  
Alaskan Copper Works  
Seattle, Washington**

July 24, 2009

Prepared for

**Alaskan Copper Works  
Seattle, Washington**



**LANDAU  
ASSOCIATES**

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**STORMWATER POLLUTION PREVENTION PLAN CERTIFICATION  
ALASKAN COPPER WORKS  
SEATTLE, WASHINGTON**

I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name of Facility Representative\*\* James Brown  
Signature James Brown Date 7/27/09

\*\* In the case of a corporation, partnership, or sole proprietorship, the plan shall be signed by either a principal executive officer of at least the level of vice president of a corporation, a general partner of a partnership, or the proprietor of a sole proprietorship. Alternatively, the plan may be signed by a duly authorized representative of that person, if general condition G.17 of the Industrial Stormwater General Permit is followed.

# TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION	1-1
2.0 FACILITY ASSESSMENT (S3.B.2)	2-1
2.1 FACILITY DESCRIPTION (S3.B.2.a)	2-1
2.1.1 Potential Sources of Stormwater Pollution (S3.B.2.b)	2-1
2.2 STORMWATER DRAINAGE (S3.B.1.c.)	2-2
3.0 BEST MANAGEMENT PRACTICES (S3.B.4.)	3-1
3.1 OPERATIONAL SOURCE CONTROL BEST MANAGEMENT PRACTICES (S3.B.4.b.i.)	3-2
3.1.1 Pollution Prevention Team (S3.B.3)	3-2
3.1.2 Good Housekeeping (S3.B.4.b.i.2)	3-2
3.1.3 Preventive Maintenance (S3.B.4.b.i.3)	3-4
3.1.4 Spill Prevention and Cleanup (S3.B.4.b.i.4)	3-5
3.1.5 Employee Training (S3.B.4.b.i.5)	3-7
3.1.6 Inspections and Recordkeeping (S3.B.4.b.i.6)	3-7
3.2 STRUCTURAL SOURCE CONTROL AND OPERATIONAL BEST MANAGEMENT PRACTICES BY INDUSTRIAL ACTIVITY (S3.B.4.b.ii)	3-8
3.2.1 BMPs for Fueling at Dedicated Stations	3-9
3.2.1.1 Operational BMPs for Fueling at Dedicated Stations	3-9
3.2.1.2 Structural BMPs for Fueling at Dedicated Stations	3-10
3.2.2 BMPs for Loading and Unloading Areas for Liquid or Solid Material	3-11
3.2.2.1 Operational BMPs	3-11
3.2.2.2 Structural BMPs	3-12
3.2.3 BMPs for Maintenance of Stormwater Drainage and Treatment Systems	3-12
3.2.3.1 Operational BMPs	3-13
3.2.4 BMPs for Roof/Building Drains at Manufacturing Buildings	3-14
3.2.4.1 Operational BMPs	3-14
3.2.5 BMPs for Storage of Liquids or Dangerous Waste Containers (Outside)	3-14
3.2.5.1 Operational BMPs	3-15
3.2.5.2 Structural BMPs	3-15
3.2.6 BMPs for Storage of Liquids in Permanent Aboveground Tanks	3-16
3.2.6.1 Operational BMPs	3-16
3.2.6.2 Structural BMPs	3-16
3.2.6.3 Treatment BMPs	3-17
3.2.7 BMPs for Urban Streets	3-17
3.2.7.1 Recommended BMPs for Urban Streets	3-17
3.3 TREATMENT BEST MANAGEMENT PRACTICES (S3.B.4.b.iii)	3-18
3.4 STORMWATER PEAK RUNOFF AND VOLUME CONTROL BEST MANAGEMENT PRACTICES (S3.B.4.b.iv)	3-18
3.5 EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (S3.B.4.b.v)	3-19
4.0 STORMWATER MONITORING PLAN (S3.B.5)	4-1
4.1 MONITORING LOCATIONS, REQUIREMENTS, AND METHODS	4-1
4.1.1 Methods for Visual Inspections	4-2
4.1.2 Methods for Stormwater Sampling	4-2
4.2 RECORDKEEPING	4-4

4.3	SUBMITTAL OF SAMPLES TO THE LABORATORY	4-4
4.4	EVALUATION OF SAMPLING RESULTS	4-5
4.5	SUBMITTING THE SAMPLING RESULTS TO ECOLOGY	4-7
5.0	USE OF THIS REPORT	5-1

## FIGURES

<u>Figure</u>	<u>Title</u>
1	Vicinity Map
2	Site Map

## TABLES

<u>Table</u>	<u>Title</u>
1	Stormwater Best Management Practices Potentially Applicable to Alaskan Copper

## APPENDICES

<u>Appendix</u>	<u>Title</u>
A	Industrial Stormwater General Permit
B	Worksheets 1-4 (Industrial Activities, Pollutant Sources, Spill Log, Employee Training)
C	Forms and Recordkeeping (DMR, Monthly Inspection, Quarterly Sampling)



## Summary of Submittals, Onsite Documentation and Required Activities

### SUMMARY OF PERMIT REPORTS & SUBMITTALS

Permit Section	Submittal	Frequency	Due Date(s)
S1.F	Conditional "No Exposure" Certification Form	As necessary	As necessary
S2.B	<i>Application</i> for Permit Coverage	As necessary	As necessary
S2.B.	Request Modification of Permit Coverage	As necessary	As necessary
S2.D	Request Transfer of Coverage	As necessary	As necessary
S9.A	Discharge Monitoring Reports (DMRs)	1/quarter	within 45 days after the end of each quarter
S9.B	Annual Report	1/year	May 15 <sup>th</sup> (except 2010)
S9.C.	SWPPP, if requested by <i>Ecology</i>	Per <i>Ecology</i> request	Within 14 days of request
S9.D	Noncompliance Notification	As necessary	Within 30 days of noncompliance event

### SUMMARY OF REQUIRED ONSITE DOCUMENTATION

Permit Condition(s)	Document Title
S3.A.4.a	Stormwater Pollution Prevention Plan (SWPPP)
S9.B	Copies of Annual Reports
S9.C.1.a	Copy of Permit
S9.C.1.b	Copy of Coverage Letter
S9.C.1.c	Original Sampling Records (Field Notes and Laboratory Reports)
S7.C & S9.C.1.d	Site Inspection Reports
S9.C.1.j	Copies of Discharge Monitoring Reports (DMRs)

## SUMMARY OF SELECTED REQUIRED ACTIVITIES

Permit Condition	Activity Description	Frequency
S7	Monthly Inspections	Qualified personnel conduct and document visual inspections of the site monthly on the monthly inspection form.
S3.B.4.b.i.5	Employee Training	Conducted at least once per year
S7	BMP Inspections	At least once per month during monthly inspections
S3.B.4.b.i.2.a	Vacuum Sweeping	Once per month or as needed but not less than once per quarter
S3.B.4.b.i.3.a	Catch Basins Cleaning	As needed when depths of debris reaches 60% of the sump depth and when the depth of debris reaches 6 inches below outlet pipe.
S3.B.4.b.i.2.d	Cover Solid Waste Storage Containers	At all times when not in use.
S7	Stormwater Observations	At least once per quarter during qualifying storm events and also during monthly inspections if conducted during a storm event
S4	Sampling	Sampling at applicable stormwater discharge locations shall be conducted at least once per quarter: 1st Quarter = January, February, and March 2nd Quarter = April, May, and June 3rd Quarter = July, August, and September 4th Quarter = October, November, and December
S9.A	DMR Submittal	Submit to Ecology within 45 days of the end of each quarter
S8	Corrective Actions	Implement: -Level One Corrective Actions (CAs) within 45 days of the end of each quarter; -and Level Two and Three CAs by Sept 30 of the following year.
S9.B	Submit Annual Report	Submit to Ecology by May 15 of each year starting in 2011.

## 1.0 INTRODUCTION

This document presents a Stormwater Pollution Prevention Plan (SWPPP) for the Alaskan Copper facility (the "Facility"), located in Seattle, Washington, in accordance with the requirements of Permit #WAR000139 under the State of Washington's Industrial Stormwater General Permit (ISGP) issued on October 21, 2009 and effective on January 1, 2010 (Permit). A copy of the ISGP is provided in Appendix A. This SWPPP is a continuation of Permit #SO3-000139D based on the ISGP issued on August 21, 2002 and modified on December 1, 2004, and has been updated to comply with the requirements of the October 21, 2009 ISGP.

This SWPPP is, as defined in the Permit, a "documented plan to implement measures to identify, prevent, and control the contamination of point source discharges of stormwater." In accordance with the Permit, this SWPPP contains five required SWPPP components [facility map, facility assessment, Best Management Practices (BMPs), Spill Prevention and Emergency Cleanup Plan (SPECP), and a sampling plan] and is divided into the following three main sections:

- **Facility Assessment (Section 2.0):** Presents a general facility description, facility map, inventory of industrial activities, and inventory of materials.
- **Best Management Practices (Section 3.0):** Describes BMPs in use or planned for use at the Facility including a listing of the Alaskan Copper pollution prevention team.
- **Stormwater Monitoring Plan (Section 4.0):** Presents a plan for conducting quarterly stormwater sampling and monthly site inspections at the Facility.

Where applicable, the Permit Condition reference is included in parentheses throughout the text of this SWPPP for major headings and select subheadings. This document will be updated, as needed, to reflect changes to the Alaskan Copper stormwater management program, including changes in BMPs and the addition of new industrial activities or potential pollutant sources, or in response to Permit modifications. Each update will be accompanied by a newly signed SWPPP Certification Form (first page of SWPPP). A copy of this SWPPP will be maintained at the Alaskan Copper administrative offices. A list of the major revisions to previous versions of the SWPPP is presented below.

Date	Revision
November 2005	Add ROMIC Environmental Technologies, Inc. as an authorized agent
November 2007	Add Clean Harbors Environmental Services, Inc. as an authorized agent
May 2009	Update SWPPP; add Clean Harbors Environmental Services Personnel to SWPPP
July 2009	SWPPP revisions and updates
January 2010	Update SWPPP to comply with 2010 Industrial Stormwater General Permit
May 2010	Revise SWPPP to include additional operational source control and treatment BMPs

## 2.0 FACILITY ASSESSMENT (S3.B.2)

As stated in the Permit, the facility assessment includes: “a description of the facility; an inventory of facility activities and equipment that contribute to or have the potential to contribute any pollutants to stormwater; and, an inventory of materials that contribute to or have the potential to contribute pollutants to stormwater.”

### 2.1 FACILITY DESCRIPTION (S3.B.2.a)

The Alaskan Copper Seattle Facility consists of two integrated business entities, Alaskan Copper Works, which is located at 3200 6<sup>th</sup> Avenue South and Alaskan Copper & Brass Company, which is located at 3223 6<sup>th</sup> Avenue South. Figure 1 shows the general vicinity of the Facility. The Facility has regular business hours of 7:00 a.m. to 4:00 p.m. Monday through Friday. Alaskan Copper performs dimensional steel and stainless steel pipe fabrication at the Facility. The Facility covers approximately 16.7 acres and roughly 96 percent of that area consists of buildings and paved areas. The layout of the Facility, including major buildings (628, 2958, 3200, 3223, 3300, 3301, 3317, and 3405), the Facility's stormwater discharge locations (and associated sampling identification numbers), and the storm drain system piping at the Facility are described in Section 2.1.1 below and also shown on Figure 2.

According to the Permit, facilities with a standard industrial classification (SIC) category of 34xx for fabricated metal products (Alaskan Copper Works has an SIC code of 3443, fabricated plate work – boiler shops) conduct operations and activities that are considered industrial activities requiring a stormwater permit. Industrial activities currently performed at this Facility include:

Steel pipe forming, bending, and cutting	Cutting operations
Pipe welding and grinding	Plasma table operations
Outdoor storage and transfer of materials	Vehicle maintenance
Vehicle fueling	

Some of these activities are limited to inside buildings and are not conducted within the stormwater drainage area. Additional details of these activities and potentially associated stormwater pollutants are provided in Worksheets 1 and 2 found in Appendix B.

#### 2.1.1 POTENTIAL SOURCES OF STORMWATER POLLUTION (S3.B.2.b)

The following items that result from Facility operations, or that are stored at the Facility, are potential sources of stormwater pollution:

Cutting fluid	Cooling fluid
Lubrication grease	Raw or final metal products
Air emissions from processing	Facility buildings (metals from roofs or walls)
Drummed solids from the cyclone	

Additional details of these potential pollutants and how they could potentially become entrained in stormwater are provided in Worksheets 1 and 2 found in Appendix B.

In accordance with Permit condition S3.b.2.c.iii, this SWPPP also addresses potential stormwater pollutants from past activities, by noting that no known potential sources of pollutants from past activities, materials, and spills were previously handled, treated, stored, or disposed of in a manner to allow ongoing exposure to stormwater. There have been no known or recorded significant spills or leaks of toxic or hazardous pollutants at the Facility that migrated off-property within the last 5 years. Minor spills may have occurred inside and outside of the Facility structures, but were contained and promptly cleaned up.

To prevent potential pollutants associated with these potential sources from reaching stormwater, the Facility employs the BMPs described in Section 3.0 of this SWPPP.

## **2.2 STORMWATER DRAINAGE (S3.B.1.c.)**

Based on storm drain utility maps provided by the City of Seattle (City), there are some portions of the Facility that drain to storm drain pipes (with ultimate discharge to a surface water body) and other portions of the Facility that drain to the combined sanitary sewer system (with ultimate discharge to a King County wastewater treatment plant). The areas where Facility stormwater runoff drains to the storm sewer are the area between Buildings 3317 and 3405 (including portions of the roofs of buildings 3317 and 3405), the area south of Building 3300 (including a portion of the roof of building 3300), the area between Buildings 3223 and 3301 including those building roofs, a portion of the paved area southwest of Building 2958, the eastern portion of Building 3200, and the Building 3200 roof and the parking area west of the building. These areas that drain to the storm sewer are shown on Figure 2. Stormwater from the remainder of the Facility drains to a combined sanitary sewer system, and the combined sewer system is also shown on Figure 2.

According to the City, stormwater exiting the Facility through the storm drain system generally flows from west to east in the City storm drain pipe south of Building 3300 (although Alaskan Copper staff recollect this storm drain line having been recently terminated off-property to allow construction of the commuter rail facility to the east). This City storm drain then turns south at 8<sup>th</sup> Avenue South, then southwest along Diagonal Avenue South, and continues southwest until just south of Idaho Street where it turns west and exits into the Duwamish River at the Diagonal Storm Drain Outfall.

The one exception to this general stormwater drainage and receiving water is the small portion of the Alaskan Copper Facility southwest of Building 2958 at the intersection of 6<sup>th</sup> Avenue South and the Hanford Street right-of-way (Alaskan Copper has authorization from the City to use this right-of-way for material storage). This small area drains to a City maintained catch basin and storm drain flow from there

is to the north with ultimate discharge to the East Waterway. This small Facility drainage area and City catch basin is not an active stormwater sampling location because the majority of the drainage to this location is from roadway runoff rather than from Alaskan Copper property and activities.

### 3.0 BEST MANAGEMENT PRACTICES (S3.B.4.)

The Permit identifies the following five categories of BMPs that may be needed at a facility to control stormwater discharge:

- **Operational Source Control BMPs (Section 3.1; S3.B.4.b.i.):** These BMPs are required at all facilities covered under the Permit and are managerial-type measures that are implemented to prevent or reduce pollution of stormwater; they specifically exclude construction of pollution control measures. Examples include general housekeeping activities, formation of a pollution prevention team, and employee training.
- **Structural Source Control BMPs (Section 3.2; S3.B.4.b.ii.):** These BMPs require construction or use of a physical structure to control pollution of stormwater. Examples include construction of a roof over a drum storage area or a containment berm around an aboveground storage tank.
- **Treatment BMPs (Section 3.3; S3.B.4.b.iii.):** These BMPs consist of actual stormwater treatment systems designed to treat polluted stormwater. Examples include catch basin insert filters, enhanced sedimentation vault devices, and use of activated carbon to remove petroleum hydrocarbons.
- **Stormwater Peak Runoff Rate and Volume Control BMPs (Section 3.4; S3.B.4.b.iv):** These BMPs provide stormwater detention or retention to reduce the peak rate of stormwater runoff, where necessary to minimize streambank erosion within receiving waters.
- **Erosion and Sediment Control BMPs (Section 3.5; S3.B.4.b.v):** These BMPs are designed to limit soil erosion and to control eroded soil, and are most commonly used during site construction. Examples include seeding and covering exposed soil, and the use of silt fencing.

The following section provides a general description of the BMPs (in italics) that are required by the Permit and then describes in greater detail the specific application of these BMPs at the Facility. The BMPs contained in this SWPPP are consistent with the BMPs contained in the Washington State Department of Ecology (Ecology) 2005 *Stormwater Management Manual for Western Washington* (2005 Manual). Therefore, demonstration of BMP equivalency is not provided in this SWPPP. In addition, the 2005 Manual contains BMPs that provide all known, available, and reasonable methods of prevention, control, and treatment (AKART) of stormwater pollution to ensure that discharges do not cause or contribute to a violation of water quality standards, and comply with federal technology-based treatment requirements under 40 CFR 125.3.

The Permit lists specific operational and structural source control BMPs that must be implemented at all permitted facilities and requires permittees to implement all operational source control BMPs, structural source control BMPs, and treatment BMPs listed as “applicable” in Ecology’s 2005 Manual. For Alaskan Copper, these “applicable” BMPs are found in Volume IV of the 2005 Manual, available online at: <http://www.ecy.wa.gov/pubs/9914.pdf>. This list, along with each BMP’s potential

applicability to the Facility, is provided in Table 1. Additional descriptions of the applicable BMPs for the Facility are provided in the following sections.

### 3.1 OPERATIONAL SOURCE CONTROL BEST MANAGEMENT PRACTICES (S3.B.4.b.i.)

This section describes operational source control BMPs that are required by the Permit for all industrial activities and operations covered under the Permit. Recommended BMPs are also listed where applicable. Additional operational BMPs are listed in Section 3.2 for specific industrial activities and operations, where required by the Permit.

#### 3.1.1 POLLUTION PREVENTION TEAM (S3.B.3)

Unless noted otherwise, the Facility adheres to the following pollution prevention team BMPs, applicable under the 2005 Manual.

- *The SWPPP shall identify specific individuals by name or by title within the organization (pollution prevention team) whose responsibilities include: SWPPP development, implementation, maintenance, and modification.*
  - **Pollution Prevention Team:** The Pollution Prevention Team for the Facility shall consist of the Responsible Official and the SWPPP Coordinator. The Responsible Official is the person with overall responsibility for Permit compliance, has delegated authority to sign discharge monitoring reports (DMRs) and inspection forms, and is to ensure that adequate resources are made available to the SWPPP Coordinator in order to implement the BMPs and monitoring requirements in the SWPPP. The SWPPP Coordinator has overall responsibility for developing, implementing, maintaining, and revising this SWPPP. Other Facility employees will assist the Pollution Prevention Team as necessary. Contact information for the Facility Responsible Official and SWPPP Coordinator is provided below.

PP Team Role	Name	Office Phone / Cell Phone
Responsible Official	Jim Brown	(206) 623-5800 / (b) (6)
SWPPP Coordinator	Jerry Thompson	(206) 382-8379 / (b) (6)

Landau Associates (425-778-0907), other environmental consulting firms, or other designated contracted personnel, may assist the Facility in SWPPP preparation, employee training, stormwater sampling, and BMP assessment services.

#### 3.1.2 GOOD HOUSEKEEPING (S3.B.4.b.i.2)

The following good housekeeping BMPs are considered applicable in the 2005 Manual and are adhered to at the Facility, unless noted otherwise.

- *Promptly contain and clean up solid and liquid pollutant leaks and spills, including oils, solvents, fuels, and dust, from manufacturing operations on any exposed soil, vegetation, or paved area.*



- **Spills:** See Section 3.1.4 on spill prevention and cleanup.
- *Clean oil, debris, sludge, etc., from all BMP systems regularly, including catch basins, settling/detention basins, oil/water separators, boomed areas, and conveyance systems, to prevent the contamination of stormwater. Refer to the Washington State Department of Ecology's (Ecology) regional offices to assist in determining if a waste must be handled as hazardous waste.*
- **Catch Basins:** See Section 3.2.3 on Maintenance of Stormwater Drainage and Treatment Systems.
- *Promptly repair or replace substantially cracked or otherwise damaged paved secondary containment, high-intensity parking, and any other drainage areas, which are subjected to pollutant material leaks or spills.*
- *Promptly repair or replace all leaking connections, pipes, hoses, valves, etc., that can contaminate stormwater.*
- *Sweep paved material handling and storage areas regularly, as needed, for the collection and disposal of dust and debris that could contaminate stormwater. Do not hose down pollutants from any area to the ground, storm drain, conveyance ditch, or receiving water unless necessary for dust control purposes to meet air quality regulations and unless the pollutants are conveyed to a treatment system approved by the local jurisdiction.*

In addition to these BMPs from the 2005 Manual, the Permit also specifically requires the following Good Housekeeping BMPs:

- *Vacuum paved surfaces with a vacuum sweeper (or a sweeper with a vacuum attachment) to remove accumulated pollutants a minimum of once per quarter.*
- **Vacuum Sweeping:** Facility personnel or outside contractors inspect, clean, and maintain areas of the Facility that accumulate dust and other debris. Paved areas are vacuum-swept monthly. Sweeping the dirt and associated pollutants from paved areas of the Facility can be one of the most effective stormwater pollutant source control measures, so increasing the frequency of sweeping will be considered any time that stormwater benchmarks are found to have been exceeded.
- *Identify and control all onsite sources of dust to minimize stormwater contamination from the deposition of dust on areas exposed to precipitation.*
- **Control of Onsite Dust:** To reduce the potential for tracking/runoff from onsite dust into storm drains between buildings 3317 and 3405, truck traffic is being eliminated from the access road between the two buildings.
- *Inspect and maintain bag houses monthly to prevent the escape of dust from the system. Immediately remove any accumulated dust at the base of exterior bag houses.*
- *Keep all dumpsters under cover or fit with a lid that must remain closed when not in use.*

The following good housekeeping BMP from the 2005 Manual is not required but recommended:

- *Recycle materials, such as oils, solvents, and wood waste, to the maximum extent possible.*
- **Recycling:** Oil is recycled at the Facility. Waste oil for recycling is stored in an approximately 500-gallon drum on the northern side of Building 628, outside of any stormwater drainage area.

### 3.1.3 PREVENTIVE MAINTENANCE (S3.B.4.b.i.3)

The following preventive maintenance BMPs are considered applicable in the 2005 Manual and are adhered to at the Facility, unless noted otherwise.

- *Prevent discharge of unpermitted liquid or solid wastes, process wastewater, and sewage to ground or surface water, or to storm drains that discharge to surface water, or to the ground.*
- *Do not connect floor drains in potential pollutant source areas to storm drains, surface water, or to the ground.*
- *Conduct all oily parts cleaning, steam cleaning, or pressure washing of equipment or containers inside a building, or on an impervious contained area, such as a concrete pad. Direct rinse water and contaminated stormwater from such an area to a sanitary sewer where allowed by the local sewer authority, or to other approved treatment.*
  - **Washing:** Parts cleaning (if needed) is conducted indoors. However, if Facility personnel wash vehicles or equipment outdoors in an area that discharges to the stormwater system, they ensure that washing is conducted only where the water will be contained within a catch basin with its outlet drain plugged, and where the washwater will be pumped out to the sanitary sewer system or hauled off site for appropriate treatment. Offsite drainage of wash-water or rinse-water to surface water is not allowed.
- *Do not pave over contaminated soil unless it has been determined that groundwater has not been and will not be contaminated by the soil. Call Ecology for assistance.*
- *Construct impervious areas that are compatible with the materials handled. Portland cement concrete, asphalt, or equivalent material may be considered.*
- *Use drip pans to collect leaks and spills from industrial/commercial equipment such as airplanes, trucks, and other vehicles, which are stored outside.*
- *At industrial and commercial facilities, drain oil and fuel filters before disposal. Discard empty oil and fuel filters, oily rags, and other oily solid waste into appropriately closed and properly labeled containers, and in compliance with the Uniform Fire Code.*
- *For the storage of liquids use containers, such as steel and plastic drums, that are rigid and durable, corrosion-resistant to the weather and fluid content, non-absorbent, watertight, rodent-proof, and equipped with a close fitting cover.*
- *For the temporary storage of solid wastes contaminated with liquids or other potential pollutant materials use dumpsters, garbage cans, drums, and comparable containers, which are durable, corrosion-resistant, non-absorbent, non-leaking, and equipped with either a solid cover or screen cover to prevent littering. If covered with a screen, the container must be stored under a lean-to or equivalent structure.*
- *Where exposed to stormwater, use containers, piping, tubing, pumps, fittings, and valves that are appropriate for their intended use and for the contained liquid.*

In addition to these BMPs from the 2005 Manual, the Permit also specifically requires the following Preventive Maintenance BMPs:

- *Clean catch basins when the depth of debris reaches 60% of the sump depth. In addition, the Permittee must keep the debris surface at least 6 inches below the outlet pipe.*

- **Catch Basins:** See BMPs for the Maintenance of Storm Drain Systems (Section 3.2.3).
- *Inspect all equipment and vehicles during monthly site inspections for leaking fluids such as oil, antifreeze, etc. Take leaking equipment and vehicles out of service or prevent leaks from spilling on the ground until repaired.*
  - **Monthly Inspections:** Qualified personnel conduct and document visual inspections of the site monthly on the monthly inspection form. A blank monthly inspection form, as well as other blank forms, is provided at the beginning of Appendix C of this SWPPP. Monthly inspection criteria are the same criteria used during stormwater monitoring as described in Section 4.1.1, except that monthly inspections may occur during either storm or non-storm events, in which case monitoring of floating debris, discoloration, etc., associated with stormwater would not apply. However, monthly inspections conducted during a non-storm event may allow the inspector to observe possible illicit discharges.
- *Immediately clean up spills and leaks (e.g., using absorbents, vacuuming, etc.) to prevent the discharge of pollutants.*
  - **Spills:** See Spill Prevention and Emergency Cleanup (Section 3.1.4).

The following preventive maintenance BMP from the 2005 Manual is not required but recommended.

- *Where feasible, store potential stormwater pollutant materials inside a building or under a cover and/or containment.*

#### 3.1.4 SPILL PREVENTION AND CLEANUP (S3.B.4.b.i.4)

The following spill prevention and cleanup BMPs are considered applicable in the 2005 Manual and are adhered to at the Facility and specifically within the South Yard, unless noted otherwise.

- *Immediately upon discovery, stop, contain, and clean up all spills.*
  - **Spill Prevention:** See Spill Prevention and Emergency Cleanup BMPs below.
- *If pollutant materials are stored on site, have spill containment and cleanup kits readily accessible. Place and maintain emergency spill containment and cleanup kit(s) at outside areas where there is a potential for fluid spills. These kits should be appropriate for the materials being handled and the size of the potential spill.*
  - **Onsite Spill Response Supplies:** See “Spill Kits” below.
  - **Additional Spill Cleanup Assistance:** If a spill cannot be contained on site with available resources, then the Facility will contact a spill response contractor. One such spill response contractor is NRC Environmental Services (1-800-337-7455).
- *If the spill has reached or may reach a storm sewer, groundwater, or surface water, notify Ecology immediately. Notification must comply with federal spill reporting requirements. To report a spill or to determine if a spill is a substance of a reportable quantity, call the Ecology regional office and ask for an oil spill operations or a hazardous waste specialist: Northwest Region (425) 649-7000. Ecology requires that oil spills be reported to the National Response Center (1-800-424-8802) and Washington State (1-800-258-5990 or 1-800-OILS-911). Report all non-oil spills to 1-425-649-7000. If the spill has reached or may reach a sanitary or a storm sewer, notify Ecology and the local sewer authority immediately. The local sewer authority is Seattle Public Utilities (206-684-3000).*

**Spill Reporting Telephone Numbers:**

<b>Ecology Northwest Region (all spills and information)</b>	<b>(425) 649-7000</b>
<b>National Response Center (oil spills)</b>	<b>1-800-424-8802</b>
<b>Washington State (oil spills)</b>	<b>1-800-258-5990 or 1-800-OILS-911</b>
<b>Seattle Public Utilities (spills to sanitary sewer)</b>	<b>(206) 684-3000</b>

- *Do not flush absorbent materials or other spill cleanup materials to a storm drain. Collect the contaminated absorbent material as a solid and place in appropriate disposal containers.*

In addition to these BMPs from the 2005 Manual, the Permit also specifically requires the SWPPP to include a Spill Prevention and Emergency Cleanup Plan (SPECPlan). The SPECPlan is presented below and consists of the following required BMPs to prevent spills that can pollute stormwater.

- *Store all chemical liquids, fluids, and petroleum products on an impervious surface that is surrounded with a containment berm or dike that is capable of containing 10% of the total enclosed tank volume or 110% of the volume contained in the largest tank, whichever is greater.*
  - **Spill Containment:** The 300-gallon diesel tank located between Buildings 3405 and 3317 is a double-walled steel tank to provide secondary containment. A short concrete block wall surrounds the tank to provide physical protection from forklift or other impacts.
- *Prevent precipitation from accumulating in containment areas with a roof or equivalent structure or include a plan on how it will manage and dispose of accumulated water if a containment area cover is not practical.*
- *Locate spill kits within 25 feet of all stationary fueling stations, fuel transfer stations, and mobile fueling units. At a minimum, spill kits shall include: i) Oil absorbents capable of absorbing 15 gallons of fuel. ii) A storm drain plug or cover kit. iii) A non-water containment boom, a minimum of 10 feet in length with a 12-gallon absorbent capacity. iv) A non-metallic shovel. v) Two five-gallon buckets with lids.*
  - **Spill Kits:** Oil absorptive materials and spill response equipment are located near the 300-gallon diesel storage tank. Spill kits contain the minimum components listed above and are inspected monthly.
- *Do not lock shut-off fueling nozzles in the open position. Do not “topoff” tanks being refueled. Block, plug, or cover storm drains that receive runoff from areas where fueling, during fueling.*
- *Use drip pans or equivalent containment measures during all petroleum transfer operations.*
- *Locate materials, equipment, and activities so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas).*
- *Use drip pans and absorbents under or around leaky vehicles and equipment or store indoors where feasible. Drain fluids from equipment and vehicles prior to onsite storage or disposal.*

- *Maintain a spill log that includes the following information for chemical and petroleum spills: date, time, amount, location, and reason for spill; date/time clean-up completed, notifications made and staff involved.*
  - **Spill Log:** See spill log form, Worksheet 3, in Appendix B.

### 3.1.5 EMPLOYEE TRAINING (S3.B.4.b.i.5)

The following employee training BMP is considered applicable in the 2005 Manual and is adhered to at the Facility, unless noted otherwise.

- *Train all employees that work in pollutant source areas in identifying pollutant sources to stormwater and in understanding pollutant control measures, spill response procedures, and environmentally acceptable material handling practices, particularly those related to vehicle/equipment liquids such as fuels, and vehicle/equipment cleaning. Use Ecology's "Stormwater Pollution Prevention Planning for Industrial Facilities" (WQ-R-93-015, 9/93) as a training reference.*
  - **Employee Training:** Alaskan Copper provides in-house training at least once per year to personnel handling stormwater issues. Training includes a review of good housekeeping BMPs, spill response procedures, and material management practices. The training covers these and other contents of this SWPPP and how employees make a difference in stormwater pollution prevention. Alaskan Copper maintains a log documenting training dates and attendees. The training log in Appendix B (Worksheet 4) will be maintained and updated.

### 3.1.6 INSPECTIONS AND RECORDKEEPING (S3.B.4.b.i.6)

The following inspection and recordkeeping BMPs are considered applicable in the 2005 Manual and are adhered to at the South Yard, unless noted otherwise.

- *Verify that the descriptions of the pollutant sources identified in the stormwater pollution control program are accurate.*
  - **Pollutant Source Inspections:** As an active Facility, near-daily observations will be made by the pollution prevention team regarding the status of potential pollutant sources at the Facility. This SWPPP will be updated if new potential sources are identified and if existing potential sources are eliminated.
- *Verify that the stormwater pollutant controls (BMPs) being implemented are adequate.*
  - **BMP Inspections:** This verification will be made by comparing stormwater monitoring results to benchmark values (see Section 4.4) and through near-daily observations of Facility BMPs by the pollution prevention team and other Facility personnel. In addition, BMPs will be visually inspected monthly. The BMP visual inspections will be documented on the monitoring forms provided in Appendix C.
- *Update the site map to reflect current conditions.*
  - The Site Map (Figure 2) will be updated as appropriate to show changes to the Facility that may impact stormwater discharges.

- *Include observations of the presence of floating materials, suspended solids, oil and grease, discoloration, turbidity, and odor in the stormwater discharges; in outside vehicle maintenance/repair areas; and liquid handling and storage areas. In areas where acid or alkaline materials are handled or stored, use a simple litmus or pH paper to identify those types of stormwater contaminants where needed. See procedures presented in Section 4.0 for conducting this inspection.*
  - **Stormwater Observations:** These observations will be made a part of the monthly visual monitoring as described in Section 4.1.1.
- *Determine whether there is/are unpermitted non-stormwater discharges to storm drains or receiving waters, such as process wastewater and vehicle/equipment washwater, and either eliminate or obtain a permit for such a discharge.*
  - **Unpermitted Non-stormwater Discharges:** This determination will be made as part of the monthly inspections described in Section 4. Monthly inspection forms will be maintained in Appendix C. Blank forms are also provided at the beginning of Appendix C. If Alaskan Copper identifies an unpermitted discharge, it will eliminate or obtain a permit for the discharge.

Recordkeeping BMPs require that the following reports be retained for five years:

- *Visual inspection reports (as described in Section 4.1.1), which should include: scope of the inspection, the personnel conducting the inspection, the date(s) of the inspection, major observations relating to the implementation of the SWPPP (performance of the BMPs, etc.), and actions taken to correct BMP inadequacies.*
  - **Recordkeeping:** Forms required as part of this SWPPP, including quarterly stormwater sampling forms and monthly inspection forms, will be maintained in Appendix C. Blank forms are also provided at the beginning of Appendix C.
- *Reports on spills of oil or hazardous substances in greater than reportable quantities (CFR Title 40 Parts 302.4 and 117), including the following: oil, gasoline, or diesel fuel that causes a violation of the State of Washington's Water Quality Standards, a film or sheen upon or discoloration of the waters of the state or adjoining shorelines, or a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.*
  - **Spill Event Recordkeeping:** Alaskan Copper will record any spill event on Worksheet 3 (Appendix B) and maintain that record for at least 5 years.

Additional records that must be kept by the pollution prevention team include the following:

- *Stormwater monitoring records (see Section 4.2).*
- *Employee training logs (see Section 3.1.5).*

Required records will be maintained in Appendix C of this SWPPP.

### 3.2 STRUCTURAL SOURCE CONTROL AND OPERATIONAL BEST MANAGEMENT PRACTICES BY INDUSTRIAL ACTIVITY (S3.B.4.b.ii)

This section describes structural source control BMPs and operational BMPs considered applicable in the 2005 Manual and used by the Facility for specific industrial activities within the Facility (treatment BMPs are also included for specific industrial activities where applicable). In addition, the

specific industrial activities listed below are also required by the Permit to include the following structural source control BMPs to minimize the exposure of manufacturing, processing, and material storage areas to precipitation and runoff:

- *Use grading, berming, or curbing to prevent runoff of contaminated flows and divert runoff away from manufacturing, processing, and material storage areas.*
- *Perform all cleaning operations indoors, under cover, or in bermed areas that prevent stormwater runoff and runoff and capture any overspray. Drain washwater to a collection system for further treatment of storage.*

### 3.2.1 BMPs FOR FUELING AT DEDICATED STATIONS

This section describes the applicable BMPs for fueling at dedicated stations.

**General Description of Potential Pollutant Sources:** *A fueling station is a facility dedicated to the transfer of fuels from a stationary pumping station to mobile vehicles or equipment. It includes above or under-ground fuel storage facilities. In addition to general service gas stations, fueling may also occur at 24-hour convenience stores, construction sites, warehouses, car washes, manufacturing establishments, port facilities, and businesses with fleet vehicles. Typically, stormwater contamination at fueling stations is caused by leaks/spills of fuels, lube oils, radiator coolants, and vehicle washwater.*

- **Applicability at Facility:** Alaskan Copper maintains a 300-gallon diesel tank between Buildings 3405 and 3317.

#### 3.2.1.1 Operational BMPs for Fueling at Dedicated Stations

The following BMPs are required by the Permit and are adhered to at the Facility, unless noted otherwise:

- *Prepare an emergency spill response and cleanup plan (per BMPs for Spills of Oil and Hazardous Substances) and have designated trained person(s) available either on site or on call at all times to promptly and properly implement that plan and immediately cleanup all spills. Keep suitable cleanup materials, such as dry adsorbent materials, on site to allow prompt cleanup of a spill.*
  - **Spill Prevention and Cleanup:** See Section 3.1.4 for spill prevention and cleanup BMPs as part of the SPECP.
- *Train employees on the proper use of fuel dispensers. Post signs in accordance with the Uniform Fire Code (UFC). Post "No Topping Off" signs (topping off gas tanks causes spillage and vents gas fumes to the air). Make sure that the automatic shutoff on the fuel nozzle is functioning properly.*
- *The person conducting the fuel transfer must be present at the fueling pump during fuel transfer, particularly at unattended or self-serve stations.*
- *Keep drained oil filters in a suitable container or drum.*

### 3.2.1.2 Structural BMPs for Fueling at Dedicated Stations

The following BMPs are required by the Permit and are adhered to at the Facility, unless noted otherwise:

- *Design the fueling island to control spills (dead-end sump or spill control separator in compliance with the UFC), and to treat collected stormwater and/or wastewater to required levels. Slope the concrete containment pad around the fueling island toward drains; either trench drains, catch basins and/or a dead-end sump. The slope of the drains shall not be less than 1 percent (Section 7901.8 of the UFC). Drains to treatment shall have a shutoff valve, which must be closed in the event of a spill. The spill control sump must be sized in compliance with Section 7901.8 of the UFC; or*
- *Design the fueling island as a spill containment pad with a sill or berm raised to a minimum of four inches (Section 7901.8 of the UFC) to prevent the runoff of spilled liquids and to prevent run-on of stormwater from the surrounding area. Raised sills are not required at the open-grate trenches that connect to an approved drainage-control system.*
  - **Drainage of Fueling Area:** The 300-gallon diesel tank is provided with double-wall secondary containment. However, the fueling area does not have a containment berm or drain to a dead-end sump. The catch basins in the area of the diesel tank have a downward facing underflow pipe that would act to contain a small volume of spilled floating diesel. That feature, in addition to the spill response kit and procedures described in Section 3.1.4, is deemed adequate for this infrequently used fueling station. However, Alaskan Copper will give future consideration to installation of a containment berm and/or a larger volume dead-end containment sump.
- *The fueling pad must be paved with Portland cement concrete, or equivalent. Asphalt is not considered an equivalent material.*
- *The fueling island must have a roof or canopy to prevent the direct entry of precipitation onto the spill containment pad. The roof or canopy should, at a minimum, cover the spill containment pad (within the grade break or fuel dispensing area) and preferably extend several additional feet to reduce the introduction of windblown rain. Convey all roof drains to storm drains outside of the fueling containment area.*
  - **Covering of fueling pad:** The small 300-gallon diesel tank is used infrequently and is not provided with a roof or canopy. However, previous stormwater sampling results from this area have shown general attainment of the previous Permit oil & grease benchmark value. A future upgrade or relocation of the diesel tank to an area under cover may be considered if future problems are found with visible oil sheens in stormwater.
- *Stormwater collected on the fuel island containment pad must be conveyed to a sanitary sewer system, if approved by the sanitary authority; or to an approved treatment system such as an oil/water separator and a basic treatment BMP (Basic treatment BMPs are listed in Volume V and include media filters and biofilters). Discharges from treatment systems to storm drains or surface water or to the ground must not display ongoing or recurring visible sheen and must not contain greater than a significant amount of oil and grease. Alternatively, stormwater collected on the fuel island containment pad may be collected and held for proper off site disposal.*
- *Conveyance of any fuel-contaminated stormwater to a sanitary sewer must be approved by the local sewer authority and must comply with pretreatment regulations (WAC 173-216-060). These regulations prohibit discharges that could "cause fire or*



explosion." An explosive or flammable mixture is defined under state and federal pretreatment regulations, based on a flash point determination of the mixture. If contaminated stormwater is determined not to be explosive, then it could be conveyed to a sanitary sewer system.

- Transfer the fuel from the delivery tank trucks to the fuel storage tank in impervious contained areas and ensure that appropriate overflow protection is used. Alternatively, cover nearby storm drains during the filling process and use drip pans under all hose connections.
- If a roof or canopy is impractical the concrete fueling pad must be equipped with emergency spill control, which includes a shutoff valve for the drainage from the fueling area. The valve must be closed in the event of a spill. An electronically actuated valve is preferred to minimize the time lapse between spill and containment. Spills must be cleaned up and disposed off-site in accordance with BMPs for Spills of Oil and Hazardous Substances.
  - **Drainage of Fueling Area:** As indicated above, a roof is considered impractical. An emergency spill control shutoff valve is not currently provided at the fueling area. Alaskan Copper will further consider installing an emergency shutoff valve for this area.
- The valve may be opened to convey contaminated stormwater to a sanitary sewer, if approved by the sewer authority, or to oil removal treatment such as an API or CP oil/water separator, catchbasin insert, or equivalent treatment, and then to a basic treatment BMP. Discharges from treatment systems to storm drains or surface water or to the ground must not display ongoing or recurring visible sheen and must not contain greater than a significant amount of oil and grease.

### 3.2.2 BMPs FOR LOADING AND UNLOADING AREAS FOR LIQUID OR SOLID MATERIAL

This section describes the applicable BMPs for loading and unloading areas for liquid or solid material.

**General Description of Potential Pollutant Sources:** Loading/unloading of liquid and solid materials at industrial and commercial facilities is typically conducted at shipping and receiving, outside storage, fueling areas, etc. Transferred materials can include products, raw materials, intermediate products, waste materials, fuels, scrap metals, etc. Leaks and spills of fuels, oils, powders, organics, heavy metals, salts, acids, alkalis, etc. during transfer are potential causes of stormwater contamination. Spills from hydraulic line breaks are a common problem at loading docks.

- **Applicability at Facility:** The Alaskan Copper Facility loads and unloads liquid and solid materials. A 300-gallon diesel tank is located within the stormwater drainage area. A drum of solids is located within the stormwater drainage area beneath the cyclone near the southwest side of building 3317.

#### 3.2.2.1 Operational BMPs

The following BMPs are required by the Permit and are adhered to at the Facility, unless noted otherwise:

- A significant amount of debris can accumulate at outside, uncovered loading/unloading areas. Sweep these surfaces frequently to remove material that could otherwise be washed

away by stormwater. Sweep outside areas that are covered for a period of time by containers, logs, or other material after the areas are cleared.

– **Sweeping:** See Section 3.1.2.

- *Place drip pans, or other appropriate temporary containment device, at locations where leaks or spills may occur such as hose connections, hose reels, and filler nozzles. Drip pans shall always be used when making and breaking connections. Check loading/unloading equipment such as valves, pumps, flanges, and connections regularly for leaks and repair as needed.*
- *To minimize the risk of accidental spillage, prepare an Operations Plan that describes procedures for loading/unloading. Train the employees, especially forklift operators, in its execution and post it or otherwise have it readily available to employees.*
- *Report spills of reportable quantities to Ecology.*
- *Prepare and implement an Emergency Spill Cleanup Plan for the facility (BMP Spills of Oil and Hazardous Substances).*

### 3.2.2.2 Structural BMPs

The following BMPs are required by the Permit and are adhered to at the Facility, unless noted otherwise:

- *At all loading/unloading areas: Consistent with Uniform Fire Code requirements (Appendix IV-D R.2) and to the extent practicable, conduct unloading or loading of solids and liquids in a manufacturing building, under a roof, or lean-to, or other appropriate cover.*
- *Berm, dike, and/or slope the loading/unloading area to prevent run-on of stormwater and to prevent the runoff or loss of any spilled material from the area.*
- *Large loading areas frequently are not curbed along the shoreline. As a result, stormwater passes directly off the paved surface into surface water. Place curbs along the edge or slope the edge such that the stormwater can flow to an internal storm drain system that leads to an approved treatment BMP.*
- *Pave and slope loading/unloading areas to prevent the pooling of water. The use of catch basins and drain lines within the interior of the paved area must be minimized as they will frequently be covered by material, or they should be placed in designated "alleyways" that are not covered by material, containers, or equipment.*

### 3.2.3 BMPs FOR MAINTENANCE OF STORMWATER DRAINAGE AND TREATMENT SYSTEMS

This section describes the operational BMPs for maintenance of stormwater drainage and treatment systems.

**General Description of Pollutant Sources:** *Facilities include roadside catch basins on arterials and within residential areas, conveyance systems, detention facilities such as ponds and vaults, oil and water separators, biofilters, settling basins, infiltration systems, and all other types of stormwater treatment systems presented in Volume V [of the Stormwater Management Manual]. Roadside catch basins can remove from 5 to 15 percent of the pollutants present in stormwater. When catch basins are about 60 percent full of sediment, they cease removing sediments. Oil and grease, hydrocarbons, debris,*

heavy metals, sediments and contaminated water are found in catch basins, oil and water separators, settling basins, etc.

- **Applicability at Facility:** The Facility maintains catch basins and stormwater conveyance piping.

### 3.2.3.1 Operational and Structural BMPs

The following BMPs are adhered to at the Facility, unless noted otherwise.

- *Inspect and clean treatment BMPs, conveyance systems, and catch basins as needed, and determine whether improvements in operations and maintenance (O & M) are needed.*
  - **Catch Basins:** The Facility catch basins are equipped with catch basin fabric filter inserts, which are inspected monthly and cleaned or replaced as needed to maintain sediment levels below 60 percent of the available sediment storage capacity and also to ensure that the debris surface is at least 6 inches below the outlet pipe in order to prevent overflow of accumulated solids out of the catch basin. Notes are to be recorded on the monthly inspection form if O&M improvements are needed.
- *Promptly repair any deterioration threatening the structural integrity of the facilities. These include replacement of cleanout gates, catch basin lids, and rock in emergency spillways.*
  - **Storm Drain Blockage:** If catch basins or storm drains are observed to not drain properly and contribute to turbidity and suspended solids, then inspect drain lines for debris or sediment blockage or broken piping. Clean and repair or replace storm drain lines as necessary to restore proper drainage.
- *Ensure that storm sewer capacities are not exceeded and that heavy sediment discharges to the sewer system are prevented.*
- *Regularly remove debris and sludge from structural BMPs used for peak-rate control, treatment, etc., and discharge to a sanitary sewer, if approved by the sewer authority, or truck to a local or state government-approved disposal site.*
- *Clean catch basins when the depth of deposits reaches 60 percent of the sump depth as measured from the bottom of the basin to the invert of the lowest pipe into or out of the basin. However, in no case should there be less than 6 inches clearance from the debris surface to the invert of the lowest pipe. Some catch basins (for example, Washington State Department of Transportation Type 1L basins) may have as little as 12 inches sediment storage below the invert. These catch basins will need more frequent inspection and cleaning to prevent scouring. Where these catch basins are part of a stormwater collection and treatment system, the system owner/operator may choose to concentrate maintenance efforts on downstream control devices as part of a systems approach.*
  - **Catch Basins:** The Facility catch basins are equipped with catch basin fabric filter inserts, which are inspected and cleaned monthly and replaced as needed to maintain sediment levels below 60 percent of the available sediment storage capacity and also to ensure that the debris surface is at least 6 inches below the outlet pipe in order to prevent overflow of accumulated solids out of the catch basin.
- *Clean woody debris in a catch basin as frequently as needed to ensure proper operation of the catch basin.*
- *Post warning signs; "Dump No Waste – Drains to Groundwater," "Streams," "Lakes," or emboss on or adjacent to all storm drain inlets where practical.*
  - **Warnings at Catch Basins:** This type of warning is not currently provided at Facility catch basins that drain to the storm sewer. However, Alaskan Copper intends to use a

stencil and spray paint such warnings on applicable catch basins within the next 6 months.

- *Disposal of sediments and liquids from the catch basins must comply with "Recommendations for Management of Street Wastes" from Appendix IV-G of the Stormwater Management Manual for Western Washington, available online at: <http://www.ecv.wa.gov/pubs/9914.pdf>.*

### 3.2.4 BMPs FOR ROOF/BUILDING DRAINS AT MANUFACTURING BUILDINGS

This section describes the operational BMPs for roof/building drains at manufacturing and commercial buildings.

**General Description of Pollutant Sources:** *Stormwater runoff from roofs and sides of manufacturing and commercial buildings can be sources of pollutants caused by leaching of roofing materials, building vents, and other air emission sources. Vapors and entrained liquid and solid droplets/particles have been identified as potential pollutants in roof/building runoff. Metals, solvents, acidic/alkaline pH, BOD, and organics, are some of the pollutant constituents identified.*

- **Applicability at the Facility:** Alaskan Copper maintains a Building 3317 air outlet that employs a cyclone air pollution control device to remove pipe production dust and grit from the air exhaust.

#### 3.2.4.1 Operational BMPs

The following BMPs are required by the Permit and are adhered to at the Facility, unless noted otherwise:

- *If leachate and/or emissions from buildings are suspected sources of stormwater pollutants, then sample and analyze the stormwater draining from the building. If a roof/building stormwater pollutant source is identified, implement appropriate source control measures such as air pollution control equipment, selection of materials, operational changes, material recycle, process changes, etc.*
- **Roof Drain Sampling and Response Actions:** Roof drain samples were collected in December of 2009. Based on the results of those samples, the Facility is implementing downspout filters with metal absorption filtration media, and also is implementing self-contained rain garden filtration units (stormwater planters) at select downspouts between Buildings 3317 and 3405.

### 3.2.5 BMPs FOR STORAGE OF LIQUIDS OR DANGEROUS WASTE CONTAINERS (OUTSIDE)

This section describes the BMPs required for Storage of Liquids, Food Wastes, or Dangerous Waste Containers (Outside).

**General Description of Potential Pollutant Sources.** *Steel and plastic drums with volumetric capacities of 55 gallons or less are typically used at industrial facilities for container storage of liquids and powders. The BMPs specified below apply to container(s) located outside a building used for temporary storage of accumulated food wastes, vegetable or animal grease, used oil, liquid feedstock or cleaning chemical, or Dangerous Wastes (liquid or solid) unless the business is permitted by Ecology to*

store the wastes. Leaks and spills of pollutant materials during handling and storage are the primary sources of pollutants. Oil and grease, acid/alkali pH, BOD, COD are potential pollutant constituents.

- **Applicability at Alaskan Copper:** There is no storage of liquids, food waste, or dangerous waste containers in containers stored outdoors within the identified stormwater drainage area (with the exception of the 300-gallon diesel tank discussed separately). The BMPs are provided in this section in the event that temporary storage of liquids or dangerous wastes may need to occur in the future.

### 3.2.5.1 Operational BMPs

The following BMPs are required by the Permit and are adhered to at the Facility, unless noted otherwise:

- *Place tight-fitting lids on all containers.*
- *Place drip pans beneath all mounted container taps and at all potential drip and spill locations during filling and unloading of containers.*
- *Inspect container storage areas regularly for corrosion, structural failure, spills, leaks, overfills, and failure of piping systems. Check containers daily for leaks/spills. Replace containers, and replace and tighten bungs in drums as needed.*
- *Businesses accumulating Dangerous Wastes that do not contain free liquids need only to store these wastes in a sloped designated area with the containers elevated or otherwise protected from storm water run-on.*
- *Drums stored in an area where unauthorized persons may gain access must be secured in a manner that prevents accidental spillage, pilferage, or any unauthorized use.*
- *Storage of reactive, ignitable, or flammable liquids must comply with the Uniform Fire Code.*
- *Cover dumpsters, or keep them under cover such as a lean-to, to prevent the entry of stormwater. Replace or repair leaking garbage dumpsters.*
- *Drain dumpsters and/or dumpster pads to sanitary sewer. Keep dumpster lids closed. Install waterproof liners.*

### 3.2.5.2 Structural BMPs

The following BMPs are required by the Permit and are adhered to at the Facility, unless noted otherwise:

- *Keep containers with Dangerous Waste, food waste, or other potential pollutant liquids inside a building unless this is impracticable due to site constraints or Uniform Fire Code requirements.*
- *Store containers in a designated area, which is covered, bermed or diked, paved and impervious in order to contain leaks and spills. The secondary containment shall be sloped to drain into a dead-end sump for the collection of leaks and small spills.*
- *For liquid wastes, surround the containers with a dike. The dike must be of sufficient height to provide a volume of either 10 percent of the total enclosed container volume or 110 percent of the volume contained in the largest container, whichever is greater, or, if a single container, 110 percent of the volume of that container.*

- *Where material is temporarily stored in drums, a containment system can be used.*
- *Place containers mounted for direct removal of a liquid chemical for use by employees inside a containment area as described above. Use a drip pan during liquid transfer.*
- *Include a tank overflow protection system to minimize the risk of spillage during loading.*

### 3.2.6 BMPs FOR STORAGE OF LIQUIDS IN PERMANENT ABOVEGROUND TANKS

This section describes the operational, structural, and treatment BMPs for the storage of liquids in permanent aboveground storage tanks.

**General Description of Pollutant Sources:** *Above-ground tanks containing liquids (excluding uncontaminated water) may be equipped with a valved drain, vent, pump, and bottom hose connection. They may be heated with steam heat exchangers equipped with steam traps. Leaks and spills can occur at connections and during liquid transfer. Oil and grease, organics, acids, alkalis, and heavy metals in tank water and condensate drainage can also cause stormwater contamination at storage tanks.*

- **Applicability at the Facility:** The 300-gallon diesel tank located between Buildings 3405 and 3317 is a double-walled steel tank to provide secondary containment. A short concrete block wall surrounds the tank to provide physical protection from forklift or other impacts.

#### 3.2.6.1 Operational BMPs

The following BMPs are required by the Permit and are adhered to at the Facility, unless noted otherwise:

- *Inspect the tank containment areas regularly to identify problem components such as fittings, pipe connections, and valves, for leaks/spills, cracks, corrosion, etc.*
- *Place adequately sized drip pans beneath all mounted taps and drip/spill locations during filling/unloading of tanks. Valved drain tubing may be needed in mounted drip pans.*
- *Sweep and clean the tank storage area regularly, if paved.*
- *Replace or repair tanks that are leaking, corroded, or otherwise deteriorating.*
- *All installations shall comply with the Uniform Fire Code and the National Electric Code.*

#### 3.2.6.2 Structural BMPs

The following BMPs are required by the Permit and are adhered to at the Facility, unless noted otherwise:

- *Locate permanent tanks in impervious (Portland cement concrete or equivalent) secondary containment areas surrounded by dikes or UL-approved double-walled tanks. The dike must be of sufficient height to provide a containment volume of either 10 percent of the total enclosed tank volume or 110 percent of the volume contained in the largest tank, whichever is greater, or, if a single tank, 110 percent of the volume of that tank.*

- **Secondary Containment:** The 300-gallon diesel tank is of double-wall steel construction to provide secondary containment. The concrete wall around this tank was installed for added physical protection.
- *Slope the secondary containment to drain to a dead-end sump (optional), or equivalent, for the collection of small spills.*
- *Include a tank overfill protection system to minimize the risk of spillage during loading.*

### 3.2.6.3 Treatment BMPs

The following BMPs are required by the Permit and are adhered to at the Facility, unless noted otherwise:

- *If the tank containment area is uncovered, equip the outlet from the spill-containment sump with a shutoff valve, which is normally closed and may be opened, manually or automatically, only to convey contaminated stormwater to approved treatment or disposal, or to convey uncontaminated stormwater to a storm drain. Evidence of contamination can include the presence of visible sheen, color, or turbidity in the runoff, or existing or historical operational problems at the facility. Simple pH measurements with litmus or pH paper can be used for areas subject to acid or alkaline contamination.*

### 3.2.7 BMPs FOR URBAN STREETS

This section describes the recommended BMPs for urban streets.

**General Description of Pollutant Sources:** Streets can be the sources of vegetative debris, paper, fine dust, vehicle liquids, tire wear residues, heavy metals (lead and zinc), soil particles, ice control salts, domestic wastes, lawn chemicals, and vehicle combustion products. Street surface contaminants have been found to contain significant concentrations of particle sizes less than 250 microns.

- **Applicability at the Facility:** An urban street (6<sup>th</sup> Avenue South) runs north-south through the middle of the Alaskan Copper Facility.

#### 3.2.7.1 Recommended BMPs for Urban Streets

The following BMPs are recommended, but not required, and could potentially help reduce turbidity, zinc, and other pollutants from entering the Facility stormwater system.

- *For maximum stormwater pollutant reductions on curbed streets and high volume parking lots use efficient vacuum sweepers (refer to Volume V, Ch. 12, for information about an emerging high-efficiency vacuum sweeper technology). Note: High-efficiency street sweepers utilize strong vacuums and the mechanical action of main and gutter brooms combined with an air filtration system that only returns clean air to the atmosphere (i.e., filters very fine particulates). They sweep dry and use no water since they do not emit any dust. It has been reported that high-efficiency vacuum sweepers have the capability of removing, from pavements under good condition, 80 percent or more of the accumulated street dirt particles whose diameters are less than 250 microns. This assumes pavements under good condition and reasonably expected accumulation conditions.*
- *For moderate stormwater pollutant reductions on curbed streets use regenerative air sweepers or tandem sweeping operations. Note: A tandem sweeping operation involves a*

single pass of a mechanical sweeper followed immediately by a single pass of a vacuum sweeper or regenerative air sweeper. A regenerative air sweeper blows air down on the pavement to entrain particles and uses a return vacuum to transport the material to the hopper. These operations usually use water to control dust. This reduces their ability to pick up fine particulates. It has been reported that these types of sweepers have the capability of removing approximately 25 to 50 percent of the accumulated street dirt particles whose diameters are less than 250 microns. This assumes pavements under good conditions and typical accumulation conditions.

- For minimal stormwater pollutant reductions on curbed streets use mechanical sweepers. Note: Mechanical sweepers are referred to as broom sweepers and use the mechanical action of main and gutter brooms to throw material on a conveyor belt that transports it to the hopper. These sweepers usually use water to control dust. This reduces their ability to pick up fine particulates. It has been reported that mechanical sweepers have the capability of removing only 10 to 20 percent of the accumulated street dirt particles whose diameters are less than 250 microns. This assumes pavements under good condition and the most favorable accumulation conditions.
- Conduct sweeping at optimal frequencies. Optimal frequencies are those scheduled sweeping intervals that produce the most cost effective annual reduction of pollutants normally found in stormwater and can vary depending on land use, traffic volume, and rainfall patterns.
- Train operators in those factors that result in optimal pollutant removal. These factors include sweeper speed, brush adjustment and rotation rate, sweeping pattern, maneuvering around parked vehicles, and interim storage and disposal methods.
- Establish programs for prompt sweeping, removal, and disposal of debris from special events that will generate higher than normal loadings.
- Disposal of street sweeping solids must comply with "Recommendations for Management of Street Wastes" described in Appendix IV-G of the SWMMWW.

### **3.3 TREATMENT BEST MANAGEMENT PRACTICES (S3.B.4.b.iii)**

The Permit does not require treatment BMPs for the industrial activities conducted at the Facility. Operational and source control BMPs discussed in this SWPPP are assumed to be adequate. However, catch basin insert filters are used, and the additional treatment BMPs described in this SWPPP (see Section 3.2.4.1 above) are being implemented as needed, based on exceeding benchmarks.

### **3.4 STORMWATER PEAK RUNOFF AND VOLUME CONTROL BEST MANAGEMENT PRACTICES (S3.B.4.b.iv)**

The Alaskan Copper Facility is believed to have been constructed in accordance with stormwater drainage rules in effect at the time of construction or Facility expansions. The receiving waters for stormwater runoff from the Facility that does not drain to the combined sanitary sewer system are the lower Duwamish Waterway and the East Waterway, which are large water bodies that are not subject to flow control limitations. Alaskan Copper does not maintain peak runoff and volume control BMPs beyond the existing catch basin storm drain network.



### 3.5 EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (S3.B.4.b.v)

BMP options for soil erosion and sediment control at industrial sites are listed below:

- *Plant vegetative cover, such as grass, trees, and shrubs, on erodible soil areas. Cover with mats, such as clear plastic, jute, and synthetic fiber. Preserve natural vegetation, including grass, trees, shrubs, and vines.*
- *Maintain vegetated swale, dike, silt fence, check dam, gravel filter berm, sedimentation basin, and proper grading.*
  - **Soil Erosion and Sediment Control:** Alaskan Copper does not perform industrial activities on unpaved areas.

## 4.0 STORMWATER MONITORING PLAN (S3.B.5)

The Permit requires each facility to conduct and document visual inspections of the site and to sample and test representative stormwater discharges at least once per quarter for at least four consecutive quarters. Specific stormwater monitoring requirements are presented below.

### 4.1 MONITORING LOCATIONS, REQUIREMENTS, AND METHODS

In accordance with Permit Condition S7, qualified personnel are to conduct and document a visual inspection of the site each month. Each inspection shall include observations made at locations where stormwater associated with industrial activity is discharged off site to waters of the state or to a storm sewer system that drains to waters of the state. For the Alaskan Copper Facility, those locations are identified to be CB331707, CB330001, CB330102, and the City maintained catch basin southeast of Building 2958. The results of each inspection are to be recorded on the Monthly Inspection Form (Appendix C), and these completed forms are to be kept on site for Ecology review.

The ISGP requires that stormwater samples be collected and tested quarterly from location(s) that are representative of stormwater being discharged from the facility. As of July 2010 the industrial operations in Building 3223 and the north half of Building 3301 have been relocated to the Kent facility. Stormwater samples at Alaskan Copper are collected from catch basins CB331707 and CB330001, as these two locations are discharge points that discharge to storm drains rather than to the sanitary sewer and are where ~~relatively higher levels of industrial activities~~ occur. The locations of these two catch basins are shown on Figure 2. Sampling of stormwater must be performed according to the following Permit criteria:

- Sampling of the stormwater discharge is to be conducted at least once per quarter:
  - 1<sup>st</sup> Quarter = January, February, and March
  - 2<sup>nd</sup> Quarter = April, May, and June
  - 3<sup>rd</sup> Quarter = July, August, and September
  - 4<sup>th</sup> Quarter = October, November, and December
- Sample the stormwater discharge from the first fall storm event each year. "First fall storm event" means the first time after October 1 of each year that precipitation occurs and results in a stormwater discharge from a facility. The first fall storm event sample will complete the requirement to take a 4<sup>th</sup> Quarter sample.
- Collect samples within the first 12 hours of stormwater discharge events. If it is not possible to collect a sample within the first 12 hours of a stormwater discharge event, Facility personnel must collect the sample as soon as practicable after the first 12 hours and keep documentation with the sampling records explaining why sampling could not occur within the first 12 hours.
- Sampling need not be performed outside of regular business hours, during unsafe conditions (e.g., during thunderstorms), or during quarters where there is no discharge.

To efficiently comply with these criteria (especially the first fall sampling event), attention must be paid to weather forecasts in order to anticipate when stormwater discharge will first occur at the designated discharge location.

#### **4.1.1 METHODS FOR VISUAL INSPECTIONS**

Visual inspections include assessments of BMPs, and observations for the presence of non-permitted stormwater discharges, floating materials, visible sheen, discoloration, turbidity, or odor in the stormwater discharge at the sampling point. Visual inspection results will be recorded on the monthly inspection form provided at the beginning of Appendix C. These completed forms, referred to in the Permit as visual inspection reports, must be signed by the person making the observations as well as by Alaskan Copper's Responsible Official or other duly authorized representative of the Facility (as described in Condition G.2a of the Permit). The form includes a certification that the Facility is in compliance or non-compliance with the SWPPP and the Permit. If the Facility inspection indicates that the requirements of the SWPPP or the Permit are not being met, the monthly inspection form must include a summary of the actions that will be taken to meet these requirements. See Section S9.E of the Permit for instructions on reporting incidents of non-compliance.

#### **4.1.2 METHODS FOR STORMWATER SAMPLING**

Stormwater samples will be collected from the designated catch basin sampling locations by either reaching into the catch basin or by using a sampling pole with sampling jar affixed to the end of the pole. Stormwater samples will be obtained by submerging the sampling bottles into the stormwater flow at the drainage pipe opening without overfilling the bottles. However, if the catch basin drainage pipe inlets are submerged, the sample will be collected from the upper portion of the stormwater in the catch basin near the inlet pipe. Additional sampling protocols are listed on pages 9 and 10 of the Ecology guidance on sampling, accessible through the following link: (<http://www.ecy.wa.gov/pubs/0210071.pdf>).

According to the Permit requirements for this type of industrial facility, stormwater will be sampled once per quarter for the parameters listed below.

Parameter	Units	Container	Preservative	Analytical Method (Holding time)	Benchmark Value	Laboratory Quantification Level
Turbidity	NTU	500mL polyethylene bottle	None if field meter, or cool to 4°C if not brought directly to lab	Field meter or meter in lab. EPA 180.1 (48 hours)	25 NTU	0.5
pH	SU	Disposable cup	None, measure immediately	Meter or pH paper in field. pH paper within +/- 0.5 SU or less. Measure immediately.	5-9 SU	+/- 0.5
Oil Sheen	Yes/No	N/A	N/A	N/A	No visible oil sheen	N/A
Total Copper	µg/L	500 mL polyethylene bottle with acid preservative	Acid, cool to 4°C if not brought directly to lab	EPA Method 200.8 in lab (6 months)	14 µg/L	2.0
Total Zinc	µg/L	500 mL polyethylene bottle with acid preservative	Acid, cool to 4°C if not brought directly to lab	EPA Method 200.8 in lab (6 months)	117 µg/L	2.5
Total Lead	µg/L	500 mL polyethylene bottle with acid preservative	Acid, cool to 4°C if not brought directly to lab	EPA Method 200.8 in lab (6 months)	81.6 µg/L	0.5
Total Petroleum Hydrocarbons (TPH)	mg/L	Two 500 mL amber glass bottles	None, cool to 4°C if not brought directly to lab	NWTPH-Dx	10 mg/L	0.1

NTU = nephelometric turbidity unit  
mL = milliliter  
mg/L = milligrams per liter  
µg/L = microgram per liter  
SU = standard unit  
EPA = U.S. Environmental Protection Agency  
N/A = not applicable

In addition, during every quarter since the first quarter of 2005 under the previous ISGP and also required under the 2010 ISGP, all facilities that discharge to impaired waterbody segments listed by the state for violations of sediment standards under Section 303(d) of the Clean Water Act must conduct quarterly sampling of authorized discharges of stormwater to surface water for total suspended solids (TSS). This Facility discharges to an impaired waterbody (Duwamish Waterway) and therefore is required to include TSS as part of its quarterly sampling program. Discharges that demonstrate TSS levels consistent with effluent limits are considered unlikely to violate sediment quality standards.

Parameter	Units	Container	Preservative	Analytical Method (Holding time)	Effluent Limit	Laboratory Quantification Level
Total Suspended Solids (TSS)	mg/L	500 mL polyethylene bottle	None	EPA 160.2 (7 days)	30 mg/L	5 mg/L

5/5/10 C:\Documents and Settings\jerry Thompson\Local Settings\Temporary Internet Files\Content.IE5\YK40ML1X\Updated 2010 August AC SWPPP redline.docP:\1198\0031FileRmR\SWPPP\updated 2010 August AC SWPPP.doc LANDAU ASSOCIATES

Sampling requires filling appropriate containers as described above. The laboratory can provide a cooler with all the necessary sample collection jars upon request. It is recommended that a cooler with collection jars be kept on site ahead of time in preparation for qualifying rain events. The Permittee has the option of measuring pH and/or turbidity in the field with either an appropriate meter or combination of pH paper and turbidity meter. The pH can be measured by inserting a strip of pH paper (provided by the laboratory) into a disposable cup for 2 to 10 minutes and comparing the strip to the color chart. Record the result in the field notebook. If the permittee does not have appropriate field meters, the laboratory is able to analyze all necessary sampling parameters.

After filling the sample bottles with stormwater from the sample location, put the bottles into the cooler supplied by the laboratory and add ice or blue ice to cool the samples if the samples are not brought directly to laboratory. Samples from catch basins are currently labeled according to the designation listed in Section 4.4, which is based on the vicinity building name and the designated catch basin number associated with that building. For example, CB331707 denotes the 7<sup>th</sup> designated catch basin in the vicinity of building 3317.

## **4.2 RECORDKEEPING**

Records required to be retained include the information recorded in the field during stormwater monitoring and the laboratory reports provided by the laboratory. All of the information to be recorded in the field is summarized on the Quarterly Stormwater Sampling form and Monthly Inspection form located in Appendix C. These forms, along with the laboratory data, should be kept in the recordkeeping section of this SWPPP (Appendix C). Copies of Discharge Monitoring Reports (DMRs), explained in Section 4.11, should also be kept in Appendix C. Field forms and laboratory reports must be retained for at least 5 years, according to the Permit. Blank forms including DMRs, quarterly stormwater sampling forms, and monthly inspection forms are provided at the beginning of Appendix C.

## **4.3 SUBMITTAL OF SAMPLES TO THE LABORATORY**

Stormwater samples should be submitted to an accredited laboratory. Alaskan Copper currently uses Freidman & Bruya, Inc., which is located at:

Freidman & Bruya, Inc.  
3012 16<sup>th</sup> Avenue West  
Seattle, Washington 98119-2029  
(206-285-8282)

The sample bottles must be labeled and the chain-of-custody (COC) form must be completed. The stormwater sample bottles should be packed in the cooler on ice if not brought directly to the

laboratory. If the cooler will leave the sampler's possession before arriving at the laboratory, place the completed COC form inside a Zip-loc bag and inside the cooler, then seal the cooler and bring the cooler to the laboratory. If the turbidity is not measured with a field meter, the sample must be brought to the laboratory as soon as possible because the sample's turbidity level needs to be analyzed by the laboratory within 48 hours of sample collection.

#### 4.4 EVALUATION OF SAMPLING RESULTS

Three main things need to happen with the stormwater monitoring data. First, the stormwater sampling results must be submitted to Ecology on a quarterly basis (see Section 4.1). Second, the stormwater sampling results must be compared to the benchmark values shown in Section 4.1.2 to assess the effectiveness of the current BMPs in preventing pollutants from entering stormwater. Values at or below benchmark values are considered unlikely to cause a water quality violation and consistent attainment of benchmark values over four consecutive quarters, collected after January 1, 2010, suspends the need to conduct further stormwater sampling for a particular parameter (unless significant process changes take place at the Facility). Therefore, no additional action is needed if sampling results are below benchmark values, with the exception that monthly inspections must continue and DMRs still need to be submitted indicating that consistent attainment has been achieved.

Unlike exceedances of effluent limits, exceedance of benchmark values does not constitute a violation of the Permit because benchmark values are not water quality standards and are not Permit limits. However, it is an indicator that additional measures should be taken to reduce the entry of pollutants into stormwater at the Facility. These response measures range from implementing additional operational BMPs (Level One Corrective Action) to implementing stormwater treatment BMPs (Level Three Corrective Action). These Permit-required corrective actions and the criteria that trigger them are presented below.

##### Level One Corrective Actions – Operational Source Control BMPs

Permittees that exceed any applicable benchmark value(s) shall complete a Level 1 Corrective Action for each parameter exceeded in accordance with the following:
1. Review the SWPPP and ensure that it fully complies with Permit Condition S3, and contains the correct BMPs from the applicable Stormwater Management Manual.
2. Make appropriate revisions to the SWPPP to include additional Operational Source Control BMPs with the goal of achieving the applicable benchmark value(s) in future discharges. The Permittee shall sign and certify the revised SWPPP in accordance with S3.A.6.
3. Summarize the Level 1 Corrective Actions in the Annual Report (Condition S9.B).
4. <b>Level One Deadline:</b> The Permittee shall fully implement the revised SWPPP according to Permit Condition S3 and the applicable Stormwater Management Manual as soon as possible, but no later than the DMR due date for the quarter the benchmark was exceeded.

### Level Two Corrective Actions – Structural Source Control BMPs

Permittees that exceed an applicable benchmark value (for a single parameter) for any two quarters during a calendar year shall complete a Level 2 Corrective Action in accordance with the following:
1. Review the SWPPP and ensure that it fully complies with Permit Condition S3.
2. Make appropriate revisions to the SWPPP to include additional Structural Source Control BMPs with the goal of achieving the applicable benchmark value(s) in future discharges. The Permittee shall sign and certify the revised SWPPP in accordance with S3.A.6.
3. Summarize the Level 2 Corrective Actions (planned or taken) in the Annual Report (Condition S9.B).
4. <b>Level 2 Deadline:</b> The Permittee shall fully implement the revised SWPPP according to Permit Condition S3 and the applicable Stormwater Management Manual as soon as possible, but no later than September 30 <sup>th</sup> the following year. <ul style="list-style-type: none"> <li>a. If installation of necessary Structural Source Control BMPs is not feasible by September 30<sup>th</sup> the following year, Ecology may approve additional time, by approving a Modification of Permit Coverage.</li> <li>b. If installation of Structural Source Control BMPs is not feasible or not necessary to prevent discharges that may cause or contribute to a violation of a water quality standard, Ecology may waive the requirement for additional Structural Source Control BMPs by approving a Modification of Permit Coverage.</li> <li>c. To request a time extension or waiver, a Permittee shall submit a detailed explanation of why it is making the request (technical basis), and a Modification of Coverage form to Ecology in accordance with Condition S2.B, by June 1<sup>st</sup> prior to the Level 2 Deadline. Ecology will approve or deny the request within 60 days of receipt of a complete Modification of Coverage request.</li> </ul>

### Level Three Corrective Actions – Treatment BMPs

Permittees that exceed an applicable benchmark value (for a single parameter) for any three quarters during a calendar year shall complete a Level 3 Corrective Action in accordance with the following:
1. Review the SWPPP and ensure that it fully complies with Permit Condition S3.
2. Make appropriate revisions to the SWPPP to include additional Treatment BMPs with the goal of achieving the applicable benchmark value(s) in future discharges. <ul style="list-style-type: none"> <li>a. The Permittee shall sign and certify the revised SWPPP in accordance with Permit Condition S3.A.6.</li> <li>b. A licensed professional engineer, geologist, hydrogeologist, or Certified Professional in Storm Water Quality (CPSWQ) shall design and stamp the portion of the SWPPP that addresses stormwater treatment structures or processes. <ul style="list-style-type: none"> <li>i. Ecology may waive the requirement for a licensed or certified professional upon request of the Permittee and demonstration that the Permittee or treatment device vendor can properly design and install the treatment device.</li> <li>ii. Ecology will not waive the Level 3 requirement for a licensed or certified professional more than one time during the permit cycle.</li> </ul> </li> </ul>
3. Summarize the Level 3 Corrective Actions (planned or taken) in the Annual Report (Condition S9.B).
4. <b>Level 3 Deadline:</b> The Permittee shall fully implement the revised SWPPP according to Permit Condition S3 and the applicable Stormwater Management Manual as soon as possible, but no later than September 30 <sup>th</sup> the following year. <ul style="list-style-type: none"> <li>a. If installation of necessary Treatment BMPs is not feasible by the Level 3 Deadline, Ecology may approve additional time by approving a Modification of Permit Coverage.</li> <li>b. If installation of Treatment BMPs is not feasible or not necessary to prevent discharges that may cause or contribute to violation of a water quality standard, Ecology may waive the requirement for Treatment BMPs by approving a Modification of Permit Coverage.</li> <li>c. To request a time extension or waiver, a Permittee shall submit a detailed explanation of why it is making the request (technical basis), and a Modification of Coverage form to Ecology in accordance with Condition S2.B, by June 1<sup>st</sup> prior to the Level 3 Deadline. Ecology will approve or deny the request within 60 days of receipt of a complete Modification of Coverage request.</li> </ul>

Facilities that continue to exceed benchmarks after a Level 2 (or Level 3) Corrective Action is triggered, but prior to the Level 2 (or Level 3) Deadline, are not required to complete another Level 2 or 3 Corrective Action the following year for the same parameter. However, a Level 1 Corrective Action is required each time a benchmark is exceeded.

Finally, the results of all visual inspection data should be used to determine if action is needed to respond to the observation of visible pollutants. Response actions may include cleanup of the observed condition and/or investigation of the source of the condition. These response actions must be documented in the monthly inspection form.

The laboratory results from the Appendix C stormwater sampling data are maintained in a separate spreadsheet database for comparison to benchmarks. The data are reviewed to track BMP effectiveness, whether benchmark concentrations are exceeded, and whether the required corrective actions in the Permit are triggered.

#### **4.5 SUBMITTING THE SAMPLING RESULTS TO ECOLOGY**

The Permit requires that the stormwater sampling results be submitted to Ecology on a quarterly basis within 45 days following the end of the reporting period. For example, fourth quarter 2010 sampling results must be submitted no later than February 14, 2011. The Facility is not required to submit visual inspection results but must retain the reports in its records as an attachment to the SWPPP. Sampling data must be summarized and submitted on a Discharge Monitoring Report form (DMR) every quarter. The DMR must be signed by a high-ranking company official in accordance with General Condition G2.a of the Permit (James Brown is the Facility's Responsible Official authorized to sign the DMR forms). Sampling data may be submitted electronically via Ecology's WebDMR system (when operable) or they can also be mailed to:

Washington State Department of Ecology  
Water Quality Program – Industrial Stormwater  
P.O. Box 47696  
Olympia, Washington 98504-7696

DMR forms must be submitted quarterly whether or not a sample was collected. If there was no sample collected due to insufficient storm events, submit the form marking the "no discharge" check box. DMR forms must also be submitted quarterly if sampling has been suspended as a result of consistent attainment of benchmark values. If sampling has been suspended based on consistent attainment, submit the form marking the "consistent attainment" check box.

In addition, the Permittee shall submit a complete and accurate Annual Report to Ecology covering the prior year's Permit compliance activities no later than May 15 of each year (except 2010) using a form provided by or otherwise approved by Ecology. The annual report shall include corrective action documentation as required in S8.BD. If corrective action is not yet completed at the time of submission of the annual report, the Permittee must describe the status of any outstanding corrective action(s). Permittees shall retain a copy of all annual reports on site for Ecology review and shall include the following information with each annual report:



- Identify the condition triggering the need for corrective action review.
- Describe the problem(s) and identify the dates they were discovered.
- Summarize any Level 1, 2, or 3 corrective actions completed during the previous calendar year and include the dates it completed the corrective actions.
- Describe the status of any Level 2 or 3 corrective actions triggered during the previous calendar year, and identify the date it expects to complete corrective actions.

For questions about the Industrial Stormwater General Permit or DMR submittals, Clay Keown at Ecology is an available contact person (360-407-6048 or [ckeo461@ecy.wa.gov](mailto:ckeo461@ecy.wa.gov)). Joe Kalmar and Gary Huitsing from Landau Associates (425-778-0907) are also available to answer questions.

a level three response.

- 6) The permittee may request a waiver from employing stormwater treatment BMPs. The waiver request must be submitted to Ecology within 3 months of initiating the level three response and must include an explanation of why the implementation of stormwater treatment BMPs are infeasible, and are not necessary for compliance with water quality standards due to unique site conditions. The stormwater treatment waiver request must be reviewed and approved by Ecology as a modification of Permit coverage in accordance with Condition S1.D before the stormwater treatment waiver becomes effective.

And finally, the results of all visual monitoring data should be used to determine if action is needed to respond to the observation of visible pollutants. Response actions may include cleanup of the observed condition and/or investigation of the source of the condition. These response actions must be documented in the visual monitoring report (Quarterly and Annual Stormwater Monitoring form) described in Section 4.7.1.

#### **4.11 SUBMITTING STORMWATER MONITORING RESULTS TO THE DEPARTMENT OF ECOLOGY**

The Permit requires that the monitoring results obtained as part of stormwater sampling be submitted to Ecology on a quarterly basis within 45 days following the end of the reporting period. For example, third quarter 2009 monitoring results must be submitted no later than November 14, 2009. Submittal of visual monitoring results is not required. Monitoring data obtained during each monitoring period must be summarized and submitted on a DMR form provided by Ecology. The DMR must be signed by a duly authorized company official in accordance with General Condition G17 of the Permit (the Alaskan Copper Works facility manager has been duly authorized and will sign the DMR forms). Monitoring data may also be submitted electronically via e-mail when Ecology completes work on an electronic DMR form. Until that time, hard copy DMR forms should be submitted to:

Industrial Stormwater Permit Manager  
Department of Ecology  
Water Quality Program  
P.O. Box 47696  
Olympia, Washington 98504-7696

DMR forms must be submitted quarterly whether or not a sample was collected. If there was no sample collected due to insufficient storm events, submit the form marking the "no discharge" check box. DMR forms must also be submitted quarterly if monitoring has been suspended as a result of consistent attainment of benchmark values. If monitoring has been suspended based on consistent attainment, submit the form marking the "consistent attainment" check box.

## 5.0 USE OF THIS REPORT

This Stormwater Pollution Prevention Plan has been prepared for the exclusive use of Alaskan Copper and applicable regulatory agencies. No other party is entitled to rely on the information, conclusions, and recommendations included in this document without the express written consent of Landau Associates. Further, the reuse of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and authorization by Landau Associates, shall be at the user's sole risk. Landau Associates warrants that within the limitations of scope, schedule, and budget, our services have been provided in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as this project. We make no other warranty, either express or implied.

This document has been prepared under the supervision and direction of the following key staff.

LANDAU ASSOCIATES, INC.

Gary J. Huitsing  
Project Engineer, P.E.

Joseph A. Kalmar, P.E.  
Senior Associate

JAK/GJH/kes

Instructions: Complete form and attach to visual monitoring reports for specified event.

**QUARTERLY AND ANNUAL  
STORMWATER VISUAL MONITORING CERTIFICATION\*  
ALASKAN COPPER WORKS, SEATTLE, WASHINGTON**

Event (circle one):          Quarterly          or          Annual

For quarterly monitoring, specify quarter and year: \_\_\_\_\_

For annual monitoring, specify month and year: \_\_\_\_\_

I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name of Facility Representative: \_\_\_\_\_

Signature of Facility Representative: \_\_\_\_\_ Date: \_\_\_\_\_

**COMPLIANCE**

I certify, based on the attached visual monitoring reports for the monitoring quarter specified above, that Alaskan Copper Works, is in compliance with this Stormwater Pollution Prevention Plan and conditions of the Washington Industrial Stormwater General Permit.

Name of Facility Representative: \_\_\_\_\_

Signature of Facility Representative: \_\_\_\_\_ Date: \_\_\_\_\_

**NON-COMPLIANCE**

I certify, based on the attached visual monitoring reports for the monitoring quarter specified above, that the Alaskan Copper Works, is **not** in compliance with this Stormwater Pollution Prevention Plan and/or conditions of the Washington Industrial Stormwater General Permit. The following conditions of non-compliance are noted: \_\_\_\_\_

\_\_\_\_\_

The following action will be taken to correct these conditions and meet the requirements of the Stormwater Pollution Prevention Plan and the Permit: \_\_\_\_\_

\_\_\_\_\_

Name of Facility Representative: \_\_\_\_\_

Signature of Facility Representative: \_\_\_\_\_ Date: \_\_\_\_\_

**QUARTERLY (AND ANNUAL) STORMWATER MONITORING  
ALASKAN COPPER WORKS, SEATTLE, WASHINGTON**

<b>Quarter:</b> _____ <b>Date:</b> _____ <b>Sampling Location:</b> _____	
<b>STORMWATER SAMPLING</b> (According to the Industrial Stormwater General Permit condition S4.A, a permittee is required to use its best efforts to meet the sampling criteria in S4.A 1-5, such as sampling only after at least one day of no greater than trace precipitation. However, if the criteria cannot be met, a permittee must still collect and submit a stormwater sample result).	
1. Approximate time rainfall began:	
2. Time of sampling (should be within 1 hour after discharge begins):	
3. No. of minutes passed between start of rainfall and time of sampling:	
4. Did sampling occur within the first hour of discharge (Y/N)?	
5. Inches of rain in gauge at time of sampling:	
6. Did the sampled storm event meet the minimum required rainfall intensity of 0.1 inches in 24 hours (Y/N)? (i.e., Is [(Row 5/Row 3) X (1,440)] ≥ 0.1?	
7. Sampling method (e.g., "from catch basin by hand"):	
8. Sampling parameters:	
9. Result of field measurements (pH/Turbidity):	
10. Comments (i.e., unusual circumstances):	
<b>VISUAL MONITORING</b> [Visual Monitoring shall assess the SWPPPs BMPs required by the Permit and shall be completed at least once per quarter at time of sampling. Discharge locations that are not sampled shall receive visual inspection at least annually using the visual monitoring portion of this form for each discharge location (Write NA for the sampling section of this form when conducting annual visual monitoring for discharge locations that are not sampled)]	
Inspect stormwater discharge for evidence of pollutants entering the drainage system. Check for oil sheen, floating debris, discoloration, turbidity, and odor. Record observations here:	
Indicate which of the following BMPs, as described in the SWPPP, were observed during this inspection:	
<input type="checkbox"/> Liquids stored outdoors are covered or have secondary containment	
<input type="checkbox"/> Covers placed over waste dumpsters and storage containers.	
<input type="checkbox"/> Paved areas swept clean	
<input type="checkbox"/> Other BMPs observed. List here:	
1. Do the BMPs listed above appear to be functioning adequately and with no observable deviations from the BMP descriptions as described in the SWPPP (Yes/No)?	
2. Do the site conditions appear to be consistent with the facility assessment and site map contained in the SWPPP (Yes/No)?	
If the answer to questions 1 or 2 were no, explain here:	
Name of sampler: _____	
Signature of sampler: _____ Date: _____	

**ANNUAL DRY SEASON STORMWATER MONITORING****ALASKAN COPPER WORKS, SEATTLE, WASHINGTON**

Date: \_\_\_\_\_

Outfall Location: \_\_\_\_\_

Completed by: \_\_\_\_\_

Action	Findings
Inspect stormwater drainage outfalls for evidence of non-stormwater discharges.  Check the listed stormwater discharge locations.	
Identify any remaining or new problem areas and determine whether additional control measures are needed.	
If a non-permitted non-stormwater discharge has been identified, notify the Northwest Regional Office of Ecology at 425-649-7000.  Attempt to determine the source of the discharge and eliminate it if possible.	

Other Comments: \_\_\_\_\_

I certify, based on this annual dry-season visual monitoring report that this facility is in compliance with its Stormwater Pollution Prevention Plan and conditions of the Washington Industrial Stormwater General Permit.

Name of Facility Representative: \_\_\_\_\_

Signature of Facility Representative: \_\_\_\_\_ Date: \_\_\_\_\_

**ATTACHMENT A**  
**Worksheets 1 through 4**

Identify Areas Associated with Industrial Activity		Worksheet #1
Edit these areas to only include those occurring at the facility or add additional areas which may be sources of pollution. Discuss the potential of these areas and activities as potential pollutant sources and identify any pollutant that may be generated by that activity.		
Industrial Area or Activity	Potential Stormwater Pollutant from Area or Activity	Likelihood of Being Present in Stormwater Discharge and Source of Potential Contamination
Plasma Table Operations	Copper, Oil and Grease, Turbidity	Leakage of process water or fluids and setting stock or unfinished product on non-contained surfaces may likely result in runoff/seepage into stormwater system
Raw product and materials in process storage areas	Copper, Oil and Grease, Turbidity	Proximity of raw material stock exhibiting exposed copper and cooling fluids is likely to result in runoff/seepage into stormwater system
Outdoor stock and material movement	Copper, Oil and Grease, Turbidity	Proximity of material and stock loading, unloading, storage, and transfer between manufacturing locations may insignificantly result in runoff/seepage into stormwater system
Generated dust or particulates	Copper, Turbidity	Accumulation of cutting materials and uncontrolled debris migration from plasma table and cutting operations insignificantly result in runoff/seepage into stormwater system
Roofs or other surfaces exposed to air emissions from processing	Copper	Uncontrolled accumulation of air emission contaminants may likely result in runoff/seepage into stormwater system
Vehicle fueling, maintenance and/or cleaning	Oil and Grease	Forklift and loading/unloading operations would rarely result in spillage of oil or grease and can result in runoff/seepage into stormwater system
Roofs or other surfaces	Zinc, Copper, Turbidity	Roofing and building construction materials having corrosion protective coatings, including galvanized materials, may likely result in runoff/seepage into stormwater system



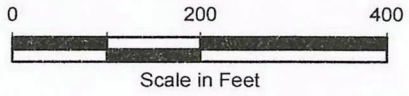
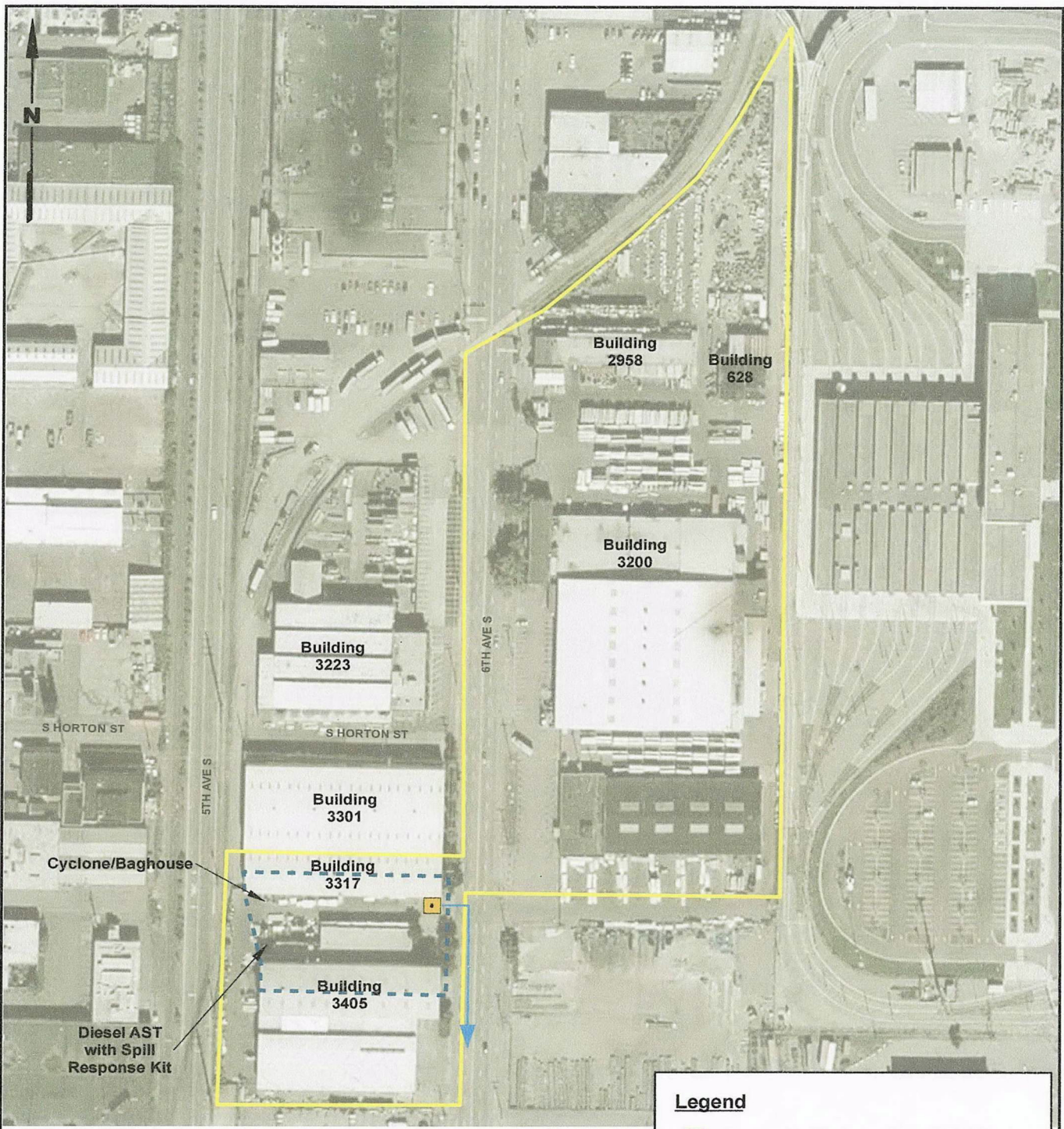
Potential Pollutant Source Identification		Worksheet #2
List all potential stormwater pollutants from onsite activities, including stored materials.		
Stormwater Pollutant Source	Potential Stormwater Pollutant	Likelihood of Pollutant Being Present in Stormwater Discharge
Plasma Table and Cutting Operations	Copper	Likely due to vaporization of metals during high temperature cutting
Stored Raw and (In Process) Product Stock	Copper, Cutting Fluids, and Oils	Likely due to exposure to rain or moisture
General Forklift Operations	Oils and Grease	Likely due to release of lubrication grease from forklifts or material supplier trucks and vehicles
Metal Cutting Work Stations	Cooling Fluids	Unlikely due to process containment but potential for coolant line rupture or failure
Building and Structures	Zinc, Turbidity	Likely due to construction material
Dust and Particle Emissions	Copper, Turbidity	Likely due to vaporization and subsequent accumulation of reconstituted vaporized contamination from processes

List of Significant Spills and Leaks						Worksheet #3		
List all spills and leaks of toxic or hazardous pollutants that were significant. Significant spills and leaks include but are <u>not</u> limited to, release of <u>oil</u> or <u>hazardous</u> substances in excess of reportable quantities. Although not required, it is recommended to list spills and leaks of non-hazardous materials.								
Date (month/day/year)	Location (refer to site map)	Description				Response Procedure		Preventive Measure Taken
		Type of Material	Quantity	Source (if known)	Reason for Spill/Leak	Amount of Material Recovered	Material No Longer Exposed to Stormwater (Yes/No)	

Employee Training		Worksheet #4	
Describe the annual training of employees on the SWPPP, addressing spill response, good housekeeping, and material management practices.			
Training Topics	Brief Description of Training Program/Materials (for example: film, newsletter, class)	Schedule for Training	Attendees (sign and date on reverse side)
1) Line Workers			
Spill Prevention and Response	Written training program based on Ecology Stormwater Program Guidelines Standard ER Response Procedures (1910.120)	July 31	Spill Prevention Team Members and Department Managers
Good Housekeeping	Internal policy and BMP review indicated in the SWPPP	July 31	Department Managers and Employees
Material Management Practices	Internal policy and BMP review indicated in the SWPPP	July 31	Department Managers
2) Pollution Prevention Team			
SWPPP Implementation	Internal policy and BMP review indicated in the SWPPP	July 31	Spill Prevention Team Members and Department Managers
Monitoring Procedures	Internal policy and BMP review indicated in the SWPPP	July, 31	Spill Prevention Team Members



Y:\Projects\273015\Mapdocs\AttachmentB.mxd 7/24/2009 NAD 1983 StatePlane Washington North FIPS 4601 Feet



**Note**  
1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Legend	
	Stormwater Discharge Point CB371707
	Stormwater System Flow
	Stormwater Drainage Area
	Alaskan Copper Works Property Boundary

Data Source: King County GIS; ESRI Image Server



Alaskan Copper Works 3200 6th Avenue South Seattle, Washington	Property Site Map	Attachment <b>B</b>
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**TABLE 1**  
**POTENTIALLY APPLICABLE BEST MANAGEMENT PRACTICES FOR INDUSTRIAL ACTIVITIES**  
**ALASKAN COPPER**  
**SEATTLE, WASHINGTON**

Best Management Practices (BMPs)	Applicability of BMP to this Facility	Comments
<b>Operational Source Control BMPs</b>		
Applicable Operational Source Control BMPs	Applies to this facility	See Stormwater Pollution Prevention Plan (SWPPP) Section 3.1.
<b>Structural Source Control BMPs</b>		
BMPs for the Building, Repair, and Maintenance of Boats and Ships	Does not apply	Alaskan Copper does not have a boatyard or shipyard.
BMPs for Commercial Animal Handling Areas	Does not apply	Alaskan Copper does not handle animals.
BMPs for Commercial Composting	Does not apply	Alaskan Copper is not a composting facility.
BMPs for Commercial Printing Operations	Does not apply	Alaskan Copper is not a commercial printing facility.
BMPs for De-icing and Anti-Icing Operations – Airports and Streets	Does not apply	Alaskan Copper does not perform de-icing activities.
BMPs for Dust Control at Disturbed Land Areas and Unpaved Roadways and Parking Lots	Does not apply	No unpaved ground within the stormwater drainage area.
BMPs for Dust Control at Manufacturing Areas	Does not apply	Alaskan Copper does not have outdoor manufacturing areas which require dust control. See Section 3.2.4 for BMPs addressing air emissions from roofs.
BMPs for Fueling at Dedicated Stations	Applies to this facility	See SWPPP Section 3.2.1.
BMPs for Illicit Connections to Storm Drains	Does not apply	Alaskan Copper has no known illicit connections to storm drains.
BMPs for Landscaping and Lawn/Vegetation Management	Does not apply	Alaskan Copper does not have grassy areas or lawns.
BMPs for Loading and Unloading Areas for Liquid or Solid Material	Applies to this facility	See SWPPP Section 3.2.2.
BMPs for Log Sorting and Handling	Does not apply	Alaskan Copper does not maintain a log yard.
BMPs for Maintenance and Repair of Vehicles and Equipment	Applies to this facility	Alaskan Copper conducts maintenance of vehicles off site. Minor maintenance, if needed, is performed indoors.
BMPs for Maintenance of Public and Private Utility Corridors and Facilities	Does not apply	No large utility corridors are present on site.
BMPs for Maintenance of Roadside Ditches	Does not apply	Alaskan Copper does not have roadside ditches.
BMPs for Maintenance of Stormwater Drainage and Treatment Systems	Applies to this facility	See SWPPP Section 3.2.3.
BMPs for Manufacturing Activities – Outside	Does not apply	Alaskan Copper does not conduct manufacturing activities outdoors.
BMPs for Mobile Fueling of Vehicles and Heavy Equipment	Does not apply	Alaskan Copper does not conduct mobile fueling outdoors.
BMPs for Painting/Finishing/Coating of Vehicles/Boats/ Buildings/Equipment	Does not apply	Alaskan Copper does not paint or coat materials.
BMPs for Parking and Storage of Vehicles and Equipment	Applies to this facility	See SWPPP Section 3.2.7, which includes parking-related BMPs.
BMPs for Railroad Yards	Does not apply	Alaskan Copper does not perform maintenance of railcars.

**TABLE 1**  
**POTENTIALLY APPLICABLE BEST MANAGEMENT PRACTICES FOR INDUSTRIAL ACTIVITIES**  
**ALASKAN COPPER**  
**SEATTLE, WASHINGTON**

<b>Best Management Practices (BMPs)</b>	<b>Applicability of BMP to this Facility</b>	<b>Comments</b>
BMPs for Recyclers and Scrap Yards	Does not apply	Alaskan Copper does recycle and maintain scraps of various materials; however, it is not a recycling or scrap yard facility.
BMPs for Roof/Building Drains at Manufacturing and Commercial Buildings	Applies to this facility	See SWPPP Section 3.2.4.
BMPs for Spills of Oil and Hazardous Substances	Applies to this facility	See Good Housekeeping Spill BMPs in SWPPP Section 3.1.4 and BMPs for ASTs in SWPPP Section 3.2.6.
BMPs for Storage of Liquid, Food Waste, or Dangerous Waste Containers (Outside).	No storage of this type within the stormwater drainage area.	These BMPs were included only for potential future reference. See SWPPP Section 3.2.5.
BMPs for Storage of Liquids in Permanent Aboveground Tanks (ASTs)	Applies to this facility	See SWPPP Section 3.2.6.
BMPs for Storage or Transfer (Outside) of Solid Raw Materials, By-products, or Finished Products	Applies to this facility	See SWPPP Section 3.2.2 for BMPs for Loading and Unloading Areas for Liquid or Solid Material.
BMPs for Urban Streets	Applies to this facility	See SWPPP Section 3.2.7.
BMPs for Washing and Steam Cleaning Vehicles/Equipment/Building Structures	Does not apply	Alaskan Copper does not perform washing or steam cleaning.
BMPs for Wood Treatment Areas	Does not apply	Alaskan Copper does not perform wood treatment outdoors.
<b>Treatment BMPs</b> Various	May apply to this facility	Additional treatment BMPs beyond those described in this SWPPP (such as recommended catch basin inserts) will be implemented, if needed, based on meeting benchmark and action levels (See SWPPP Section 3.3).
<b>Stormwater Peak Runoff Rate and Volume Control BMPs</b> Various BMPs	Does not apply	Alaskan Copper is not required to have peak runoff rate or volume control BMPs.
<b>Erosion and Sediment Control BMPs</b> BMPs for Soil Erosion and Sediment Control at Industrial Sites	Does not apply	Alaskan Copper does not have industrial activities on soil areas.



**QUARTERLY STORMWATER SAMPLING  
ALASKAN COPPER WORKS, SEATTLE, WASHINGTON**

Quarter: _____ Date: _____ Sampling Locations: <u>CB331707 and CB330001</u>	
<b>STORMWATER SAMPLING:</b> According to the Industrial Stormwater General Permit condition S4.B, a permittee is required to collect a sample within the first 12 hours of stormwater discharge. Fourth quarter sampling must occur during the first storm event of that quarter. For the other three quarters, sampling does not need to be conducted during the first storm event. Permittees need not sample outside of regular business hours, during unsafe conditions, or during quarters where there is no discharge, but must still submit a Discharge Monitoring Report each reporting period.	
1. Time of sampling (should be within 12 hours after discharge begins):	<u>CB331707:</u> _____ <u>CB330001:</u> _____
2. Did sampling occur within the first 12 hours of discharge?	<input type="checkbox"/> Yes <input type="checkbox"/> No
3. If the answer to question 2 is no, explain why a sample was not collected within the first 12 hours.	
4. For fourth quarter sampling, did the sampling occur during the first storm event of that quarter? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
5. Sampling method (e.g., "from catch basin by hand"):	_____
6. Sampling parameters: turbidity, pH, total copper, total zinc, total lead, total petroleum hydrocarbons, TSS	
7. Oil Sheen Present?	<u>CB331707:</u> <input type="checkbox"/> Yes <input type="checkbox"/> No <u>CB330001:</u> <input type="checkbox"/> Yes <input type="checkbox"/> No
8. Result of field measurements (pH/Turbidity):	<u>CB331707:</u> _____ <u>CB330001:</u> _____
9. Comments (i.e., unusual circumstances):	
Name of sampler: _____	
Signature of sampler: _____ Date: _____	
<b>VISUAL MONITORING REMINDER</b> [If monthly visual monitoring has not already been conducted, record the results of visual monitoring on the separate required Monthly Inspection form].	

**Industrial Stormwater General Permit National Pollutant Discharge Elimination System (NPDES)**

**Discharge Monitoring Report (DMR)**

**ADDITIONAL SAMPLING LOG**

If you collect more than one sample per quarter, report the results in the table below. Include the date the sample was collected, and the results of the analysis. Calculate the average (mean) for each parameter (except pH and oil sheen) and report the value in the AVERAGE column on the front page. Attach additional sheets if necessary.

<b>Site Name:</b> ALASKAN COPPER		WAR000139	
<b>Site Address:</b> 3200 6th Avenue South			Sampling Point
<b>City:</b> Seattle	<b>County:</b> King		

Sample date (MM/DD/YYYY)	Turbidity (NTU)	pH (s.u.)	Zinc, Total (µg/L)	Oil Sheen Present? (circle one)	Copper, Total (µg/L)	Lead, Total (µg/L)	Total Petroleum Hydrocarbons (TPH)

Mail your DMR to: Department of Ecology, Water Quality Program – Industrial Stormwater, P.O. Box 47696, Olympia, WA 98504-7696



# Industrial Stormwater General Permit National Pollutant Discharge Elimination System (NPDES)

## Discharge Monitoring Report (DMR)

<b>Site Name:</b> ALASKAN COPPER WORKS		WAR000139	
<b>Site Address:</b> 3200 6th Avenue South			Sampling Point
<b>City:</b> Seattle	<b>County:</b> King		

Submit **one** DMR per sampling point.

Reporting Period			
Quarter (circle one) Year:			
1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>
Jan/Feb/Mar	Apr/May/Jun	Jul/Aug/Sept	Oct/Nov/Dec

Parameter	Units	Benchmark Value (Effluent Limit)*	Analytical Method	Laboratory Quantitation Level	Sample Results			
					SINGLE SAMPLE RESULT	SINGLE SAMPLE DATE (MM/DD)	AVERAGE <small>(If more than one sample collected, complete additional sampling log on next page.)</small>	CONSISTENT ATTAINMENT? <small>(Condition S4.B.6) (✓ for yes)</small>
Turbidity	NTU	25	EPA 180.1, Meter	0.5				<input type="checkbox"/>
pH	s.u.	5 - 9	Meter	±0.5			N/A	<input type="checkbox"/>
Zinc, Total	µg/L	117	EPA 200.8	2.5				<input type="checkbox"/>
Oil Sheen	Yes/No	No visible oil sheen	N/A	N/A	Sheen Present? Yes / No (circle)		N/A	N/A
Copper, Total	µg/L	Western WA: 14 Eastern WA: 32	EPA 200.8	2.0				<input type="checkbox"/>
Lead, Total	µg/L	81.6	EPA 200.8	0.5				<input type="checkbox"/>
Total Petroleum Hydrocarbons (TPH)	mg/L	10	NWTPH-Dx	0.1				<input type="checkbox"/>
TSS*	mg/L	(30)*	SM2540-D	5			N/A	N/A

☐ No sample collected – No stormwater was discharged during normal working hours.

☐ No sample collected – Stormwater was discharged during normal working hours, but a sample wasn't collected (explain in comments section).

\*TSS is included per condition S6 of Permit because this facility discharges to a water body 303(d) listed for sediment. The effluent limit of 30 mg/L is for both marine and fresh water.  
ADDITIONAL COMMENTS:

Certification Statement I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____ Name / Title (printed)	_____ Signature (not valid unless signed). See Permit Condition G2 for signature requirements.	_____ Date Signed
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Mail your DMR to: Department of Ecology, Water Quality Program – Industrial Stormwater, P.O. Box 47696, Olympia, WA 98504-7696

AKC-0022403

**MONTHLY INSPECTION FORM**  
**ALASKAN COPPER WORKS, SEATTLE, WASHINGTON**

Quarter: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Weather Conditions: \_\_\_\_\_

**MONTHLY INSPECTION** [In accordance with Permit Condition S7, qualified personnel shall conduct and document visual inspections of the site each month. Each inspection shall include: observations made at stormwater sampling locations and areas where stormwater associated with industrial activity is discharged off site; or discharged to waters of the state, or to a storm sewer system that drains to waters of the state. Record the results of each inspection on this form and keep the form on site for Ecology review.]

If conducted during a storm event, inspect stormwater discharge for evidence of pollutants entering the drainage system. Check for oil sheen, floating debris, discoloration, turbidity, and odor. Record observations here:

(Inspection locations: CB331707, CB330001, CB330102, and CB SW of Bldg 2958)

Or, if conducted during a non-storm event, check for the presence of illicit discharges such as domestic wastewater, noncontact cooling water, or process wastewater. Groundwater is not considered an illicit discharge. If an illicit discharge is discovered, the Permittee shall notify Ecology within seven days and eliminate the illicit discharge within 30 days. Record observations here:

Assess all BMPs that have been implemented paying special attention to the following (check BMPs inspected):

- ☐ Catch basin insert filters inspected and cleaned or replaced as necessary.
- ☐ Liquids stored outdoors are covered or have secondary containment.
- ☐ Covers placed over waste dumpsters and storage containers.
- ☐ Paved areas swept clean.
- ☐ Vehicles and Equipment (no major leaks). ☐ Other BMPs observed? List here:

1. Do the BMPs listed above appear to be effective and functioning adequately and with no observable deviations from the BMP descriptions as described in the SWPPP (Yes / No)?
2. Do the site conditions including potential pollutant sources appear to be consistent with the facility assessment and site map contained in the SWPPP (Yes / No)?

[If the answer to questions 1 or 2 were no, explain here. Include, if applicable, the locations of BMPs that need maintenance, the reason maintenance is needed and a schedule for maintenance, as well as the locations where additional or different BMPs are needed and the rationale for the additional or different BMPs.]

**COMPLIANCE STATEMENT:** In the judgment of the person identified below as Inspector, the Alaskan Copper Facility is in ☐ **COMPLIANCE** OR ☐ **NON-COMPLIANCE\*** (check one) with the terms and conditions of the SWPPP and the Permit. In the judgment of the person identified below as Facility Representative, the Facility is in ☐ **COMPLIANCE** OR ☐ **NON-COMPLIANCE\*** (check one) with the terms & conditions of the SWPPP and the Permit. \*If non-compliance, the Permittee shall prepare reports of non-compliance in accordance with the requirements of Condition S9.E of the Permit; and in addition, include as part of this inspection, a summary report and a schedule of implementation of the remedial actions that the Permittee plans to take if the site inspection indicates that the site is out of compliance. The remedial actions taken must meet the requirements of the SWPPP and the permit.

**CERTIFICATION:** I certify that this report is true, accurate, and complete, to the best of my knowledge and belief.

Name of inspector (1): \_\_\_\_\_ Title \_\_\_\_\_

Signature of inspector (1): \_\_\_\_\_ Date \_\_\_\_\_

Name of Facility Representative (2): \_\_\_\_\_ Title \_\_\_\_\_

Signature of Facility Representative (2): \_\_\_\_\_ Date \_\_\_\_\_

(1): As acknowledged by Ecology's Detailed Response to Comments Fact Sheet, APPENDIX C Addendum Part TWO, the certification and signature of the site inspector "may be limited by several factors including incomplete information (e.g., DMR compliance, etc...)". Therefore, by implication, certification and signature by the site inspector does not guarantee site compliance, nor does it imply site inspector liability if non compliance is later determined for the site.

(2) In lieu of Certification and signature of the person described in Condition G2.A of the Permit, a duly authorized representative of the facility, in accordance with Condition G.2.B, may also certify and sign this inspection form.